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ELECTRONIC PRINCIPLES INVENTORY SHEPPARD TECHNICAL

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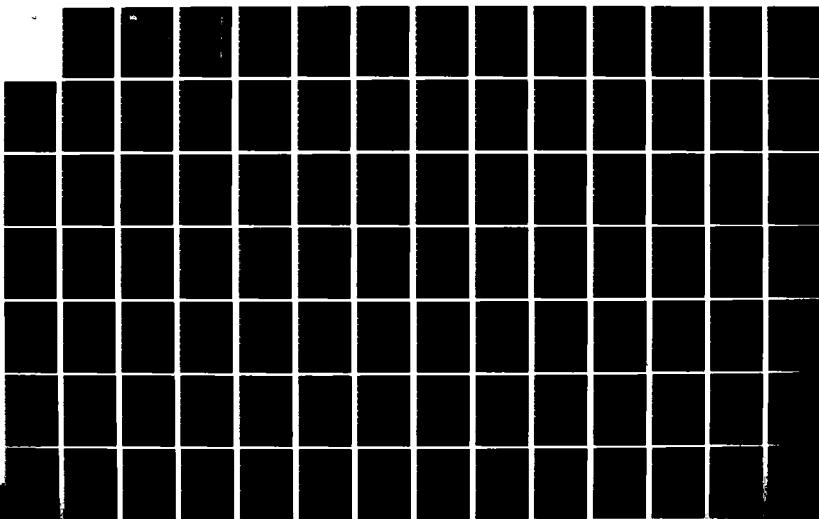
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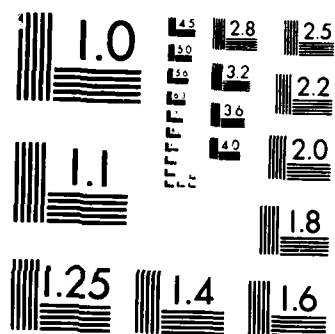
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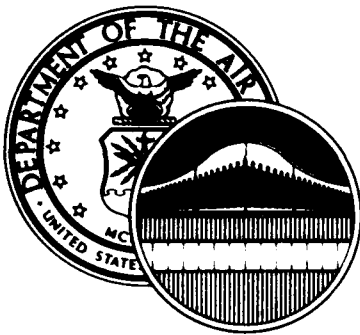
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ELECTRONIC PRINCIPLES INVENTORY

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ELECTRONIC PRINCIPLES INVENTORY

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AFPT 90-EPI-485

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PREFACE

This report presents the results of an Air Force Electronics Principles Survey of those specialties for which electronics training is provided at Sheppard Technical Training Center, Sheppard AFB, Texas. Authority for conducting electronics principles surveys is contained in AFR 35-2.

The survey instrument used to collect data from career ladder incumbents, the Electronics Principles Inventory (EPI), was originally developed by Dr. Hendrick W. Ruck and Major Thomas J. O'Connor in 1976. It was revised and updated in 1979 by Mr. James L. Slovak and Captain Frederick B. Bower, Jr. Mr. Slovak further refined and updated the instrument in 1981.

Second Lieutenant H. A. Goodman analyzed the data and wrote the final report. Computer support was provided by Ms. Olga Velez. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78150.

Copies of this report are available to Air Staff sections, major commands, and other training and management personnel. Requests for additional copies should be addressed to the USAF Occupational Measurement Center, Attention: Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150.

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SUMMARY

1. Sample: Eight AFSCs and a total of 861 members completed the Electronics Principles Inventory (EPI). This covered at least 50 percent of the assigned strengths of each of the electronics AFSCs serviced by Sheppard Technical Training Center.
2. Administration: Inventories were administered to a stratified random sample of 5- and 7-skill level career ladder incumbents between August 1983 and January 1984.
3. Skill Level Findings: Two AFSCs, 31650F and 91850, were found to have percent members performing figures which reflect very different needs for electronics fundamentals than other AFSCs in the study. The 316X0F AFS had very low percent members performing figures on EPI items, while the 918X0 AFS had, on the average, extremely high figures. No systematic differences were found to exist between the 5- and 7-skill levels.
4. Course POI: Based on the percent members performing figures of inventory items, a need for updating of the POI seems to be indicated. The match of POI paragraphs and subparagraphs to inventory items was not always consistent with percent members performing.

**ELECTRONICS PRINCIPLES INVENTORY
SHEPPARD AFB, TEXAS**

INTRODUCTION

The USAF Occupational Measurement Center provides specialty task data to training personnel in the form of occupational survey reports (OSR) and training extracts. Such data are presented in task statements quantified according to percent members performing, relative time spent, task difficulty, and training emphasis. This task data provides a precise picture of the kinds of functions personnel in a specific AFS actually perform at a specific point in time. When properly applied, OSR data can be a powerful tool in the design of training content.

Generally speaking, OSR task statements can sometimes be difficult to translate into knowledge requirements. This is especially true of tasks which require some degree of electronics knowledge. Prior to development of the Electronics Principles Inventory, training managers and command representatives had to rely on subjective interpretations of task statements to arrive at the kinds of knowledge required to perform electronics-oriented tasks. This requirement for more objective criteria for determining the amount of electronics knowledge necessary to perform the job resulted in the development of a new type of USAF job inventory, called the Electronics Principles Inventory.

Electronics Principles Inventory
The (EPI) is a knowledge-based job inventory which identifies the range of electronics principles personnel must understand to perform any electronics-oriented job. Training managers can use EPI data in conjunction with OSR data to determine precisely what specialists do and what electronics principles they employ on the job. By using EPI and OSR data in this manner, training managers satisfy one of the most important aspects of the instructional systems development (ISD) process: determine what specialists do on the job before developing a course to train individuals to perform the job. The EPI booklet differs from the usual task-oriented survey in two major respects. First, the EPI asks two general questions: "What do you do?" and "What electronics knowledge do you use in performing your job?" The second difference is the EPI can be administered to anyone who works with electronics. That is, it is general in nature, unlike the usual job inventory, which is aimed at a single specialty within a career field.

History

In 1974, the initial request to develop a method of determining electronics fundamentals used on the job was made by Major General Charles G. Cleveland, Deputy Chief of Staff, Technical Training, Air Training Command. At the time, General Cleveland needed some means of accurately measuring how much electronics fundamentals training was actually used on the job. He envisioned using EPI data to streamline training by eliminating "nice-to-know" information in the area of electronics security.

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At the General's request, Dr. Walter E. Driskill, Chief of the Occupational Analysis Branch, set up a task force to conceptualize, develop, and apply a method for measuring job usage of electronics principles. The task force was composed of personnel from the Occupational Analysis Branch who were well qualified in theoretical physics and electronics. These personnel also had considerable expertise in task analysis and survey development. With assistance by these individuals, electronics experts from 5 ATC Technical Training Centers, averaging 12 years maintenance experience and 4 years of electronics principles instruction experience, spent 3 weeks working on the development of the EPI. This tentative EPI then was reviewed and refined by over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFSC, as well as personnel at the Electronics Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory. The resulting EPI contained 1,257 items under 62 subject-matter areas covering all electronics principles training given at the 5 ATC Technical Training Centers.

During 1977, this EPI was administered to more than 11,000 airmen in 54 different Air Force specialties. Since the aim of the EPI was to determine the extent electronics fundamentals were actually used in the performance of Air Force jobs, the logical person to survey was one at the worker level with sufficient time on the job to understand all it entailed. Consequently, only 5-skill level personnel with more than 18 months active duty service were surveyed. Results from this project were used extensively by the various training managers to refine their respective plans of instruction.

This original EPI was revised in 1978 and 1979 to more accurately reflect some of the computer-oriented and various other electronics principles. The revision was accomplished by Mr. James L. Slovak, Inventory Development Specialist, and Captain Frederick Bower, Occupational Analyst, after consultation with electronics principles instructors at each of the technical training centers. Mr. Slovak conducted a further revision of the EPI in 1981, following additional consultation with electronics principles experts. Following this extensive review, the EPI was reprinted in its current format which includes 1,366 items.

SURVEY ADMINISTRATION

The Electronics Principles Inventory (EPI) was administered to 5- and 7-skill level personnel in those specialties for which electronics training is provided at Sheppard AFB. These AFSs included:

306X1	Elect-Mech Comm and Crypto Equip Systems Spec
306X2	Telecomm Systems Equip Maint Spec
316X0F	Missile Systems Analyst
316X2F	Missile Electronics Equip Spec
362X1	Telephone Central Off Switching Spec
362X3	Missile Control Communications Spec
362X4	Telephone Equip Installation and Repair Spec
918X0	Biomedical Equip Maintenance Spec

Inventories were administered to a stratified random sample of career ladder incumbents. In each specialty surveyed, booklets were sent to career ladder incumbents randomly selected across the 5- and 7-skill levels. No more than 500 booklets were administered to any given specialty due to computer restrictions. These personnel were selected so as to accurately represent all specialty groups. Seven-skill level were also surveyed; however, their data is collected for use in a later study and is also utilized for purposes of comparison with 5-skill level personnel. The inventories were administered between August 1983 and January 1984.

Table 1 displays survey representation across specialties. Maximum sample is the total number of incumbents by AFS who were selected to be surveyed. Final sample represents the total number of individuals from the maximum sample who actually completed and returned survey booklets. The table shows at least 50 percent of the maximum for any one of the eight AFSCs surveyed. This ensures acceptable representation across specialties.

TABLE 1
SPECIALTY REPRESENTATION IN SHEPPARD EPI SAMPLE

<u>AFSC</u>	<u>TOTAL ASSIGNED</u>	<u>MAXIMUM SAMPLE*</u>	<u>FINAL SAMPLE</u>	<u>PERCENT OF ASSIGNED IN SAMPLE</u>	<u>PERCENT OF MAXIMUM IN SAMPLE**</u>
306X1	390	211	108	35	51
306X2	977	500	267	27	53
316X0F	179	102	51	28	50
316X2F	93	39	22	24	56
362X1	606	327	184	30	56
362X3	117	62	36	31	58
362X4	658	369	194	29	53
918X0	371	179	99	27	55

* Specialties with few members were oversampled to ensure some representation in the final sample; for large specialties, a maximum of 500 cases were selected.

** A minimum acceptable level of 50 percent was used as a cutoff for closing field administration.

TABLE 2

ELECTRONICS PRINCIPLES WITH 30-50 PERCENT MEMBERS PERFORMING IN ALL 8 AFSCs

ELECTRONICS PRINCIPLES	PERCENT MEMBERS PERFORMING BY AFSC							
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850
001 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?	70	74	66	81	70	71	48	98
467 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES?	89	80	86	81	45	81	87	93
289 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	64	45	51	81	58	52	45	91
290 DO YOU USE OR REFER TO SPST, (NORMALLY CLOSED) (NC) SCHEMATIC SYMBOLS FOR RELAYS?	64	45	52	81	58	52	45	91
468 DO YOU INSPECT POWER SUPPLIES?	85	80	69	75	44	81	83	91
023 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM "WATTAGE"?	61	74	90	91	60	67	44	96
471 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	86	75	55	63	36	81	56	91
293 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?	52	35	35	31	69	43	43	84
291 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?	59	34	48	81	50	43	47	89
292 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?	52	34	43	81	48	38	44	89
063 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE POWER?	36	47	34	31	53	43	3	91

Underlined Numbers Indicate the Minimum Percent Members Performing the Electronics Principles, and those numbers are Specialties.

TABLE 3

ELECTRONICS PRINCIPLES WITH 50-100 PERCENT MEMBERS PERFORMING IN ALL 8 AFSCs

ELECTRONICS PRINCIPLES	PERCENT MEMBERS PERFORMING BY AFSC							
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850
012 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERMS "VOLTAGE" OR "VOLT" (V)?	<u>92</u>	96	100	100	94	100	96	100
014 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM "OHM"?	86	92	90	100	92	91	83	100
022 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM "CURRENT"?	89	93	90	100	89	95	83	100
061 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?	86	91	93	88	91	86	81	100
060 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?	82	8 ^a	83	88	91	86	75	100
017 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM "AMPHERE"?	83		76	88	88	86	74	100
277 DO YOU WORK WITH RELAYS IN YOUR PRESENT JOB?	79	<u>60</u>	69	81	74	81	77	91
809 DO YOU WORK WITH METERS IN YOUR PRESENT JOB?	68	<u>73</u>	86	75	67	67	62	29
281 DO YOU TROUBLESHOOT RELAYS?	73	61	66	31	80	31	75	93
816 DO YOU ZERO OHMMETERS?	67	<u>75</u>	72	31	68	67	61	84
913 DO YOU READ METER SCALES?	63	75	86	75	66	67	60	39
062 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?	71	85	<u>52</u>	81	84	67	50	90

Underlined Numbers Indicate the Minimum Percent Members Performing that Electronics Principle across the Eight Specialties

TABLE 4

REPRESENTATIVE ELECTRONICS PRINCIPLES NOT UTILIZED BY MISSILE SYSTEMS ANALYST (316XOF) PERSONNEL

ELECTRONICS PRINCIPLES	PERCENT MEMBERS PERFORMING BY AFSC									
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850		
033 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	17	29	0	56	24	33	8	91		
098 DO YOU INSPECT CAPACITORS?	83	82	0	81	57	76	33	93		
102 DO YOU DISCHARGE CAPACITORS?	83	71	0	63	43	67	29	86		
109 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OR CAPACITORS?	55	49	0	63	36	43	11	82		
128 DO YOU CLEAN TRANSFORMERS?	52	59	0	69	21	43	15	73		
234 DO YOU INSPECT FILTER CIRCUITS?	55	37	0	31	9	43	11	71		
264 DO YOU SOLDER CONNECTIONS?	88	88	0	81	34	81	36	93		
269 DO YOU MAKE HARDWIRE CONNECTIONS?	83	81	0	81	79	71	31	91		
279 DO YOU CLEAN RELAYS?	76	55	0	75	30	31	79	91		
310 DO YOU INSPECT SPEAKERS?	26	4	0	19	10	91	53	71		
324 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB?	89	78	0	81	38	71	8	96		
343 DO YOU INSPECT DIODES?	77	67	0	75	40	67	14	93		
355 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?	82	63	0	69	29	52	7	93		
473 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?	73	76	0	63	28	71	23	91		

TABLE 5

REPRESENTATIVE ELECTRONICS PRINCIPLES UTILIZED MORE BY BIOMEDICAL EQUIPMENT SPECIALISTS
(918X0) THAN THE OTHER SEVEN SPECIALTIES

ELECTRONICS PRINCIPLES	PERCENT MEMBERS PERFORMING BY AFSC									
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850		
505 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?	27	8	3	6	6	14	1	68		
540 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB?	21	16	3	6	2	5	1	73		
033 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	17	29	0	56	24	33	8	91		
081 DO YOU USE OR REFER TO HENRIES?	21	21	0	19	13	5	2	63		
122 DO YOU WORK WITH VARIABLE CAPACITORS?	27	26	0	31	18	14	13	77		
137 DO YOU WORK WITH AUTOTRANSFORMERS?	8	7	0	19	51	10	1	89		
164 DO YOU INSPECT THREE-PHASE TRANSFORMERS?	14	6	7	31	8	0	2	77		
163 DOES YOUR JOB INVOLVE ANT TASKS DEALING WITH THREE-PHASE TRANSFORMERS?	17	6	14	44	6	0	0	82		
199 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	17	12	0	6	2	0	0	64		
215 DO YOU CHECK INDUCTORS USING OHMMETERS?	24	24	0	19	9	19	4	66		
254 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING?	47	20	0	19	6	10	1	82		
259 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	20	17	0	6	6	5	3	71		
445 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?	23	14	0	19	3	24	1	30		
464 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS?	8	2	0	6	2	0	0	86		
516 DO YOU WORK WITH SERIES HARTLEY SINUSODIAL OSCILLATORS?	11	4	0	0	1	0	0	146		

5-Skill Level Use of Electronics Principles

Five-skill level personnel across the eight specialties were compared for electronics principles use. The objective of this comparison was to identify the core principles utilized by 5-skill level personnel in all 8 Sheppard Electronics Principles Inventory AFSs at 30 to 50 percent, and 50 to 100 percent members performing. Table 2 lists those electronics principles where at least 30 percent members are performing, and Table 3 lists those electronics principles where at least 50 percent members are performing. This information should be useful to technical school personnel who need to identify core electronics principles for training. As the tables display, there are 23 electronics principles common to all AFSs which have a significant enough level of percent members performing (at least 30 percent) to justify a need for them to be addressed in the Sheppard EPI Course.

Two areas of significant dissimilarity between the specialties also emerged during the analysis. The first concerns Missile Systems Analyst (316XOF) personnel who are using electronics principles much less than the other seven AFSs. In fact, in many instances, 316XOF personnel will have no members using an electronics principle where the other AFSs show percent members performing into the 90 percent range. Table 4 provides a representative sample of electronics principles not performed by 316XOF personnel which are performed by the other AFSs. The total of all electronics principles where this occurs would be too numerous to list in a standard table; however, this information is supplied in FACPRT 4 of Appendix A.

The second specialty which is markedly different from the others is the Biomedical Equipment Maintenance Specialists (918X0). In contrast to Missile Systems Analyst personnel, the 918X0s are using electronics principles to a much greater degree than any of the other specialties. Table 5 provides a representation of electronics principles utilized by 918X0s and shows how this compares with the other seven AFSCs.

This information should be useful to Sheppard Electronics Principles training personnel in designing blocks specific to the various specialties. Other than the differences noted in the Missile Systems Analyst and Biomedical Equipment personnel specialties, 5-skill level personnel in the other four specialties seem to utilize about the same amount of electronics principles. There are no major differences which exist between the 5- and 7-skill levels; however, this will be discussed in the next section.

7-Skill Level Use of Electronics Principles

Five-skill level members were compared to 7-skill level members between the 8 specialties (30651 to 30671, 30652 to 30672, etc.) to determine if there were any differences. After reviewing the percent members performing each electronics principle in the inventory and the time spent by members on those principles, it is clear that no major differences exist between skill levels.

Members who reach the 7-skill level seem to become a tier of "super" technicians. They continue to perform tasks which require the same electronics principles used by the 5-skill level workers (though the 7-skill level members have become more experienced in electronics principles applications). For a description of differences by AFS, refer to the 5-skill level section.

Plan of Instruction (POI)

Technical school training personnel were tasked with matching EPI survey knowledge items with the appropriate objectives from their plan of instruction, dated 31 March 1983. This matching was necessary to determine if the POI was fulfilling the training needs of the various fields it supports.

There are 1,366 items in the survey which needed to be matched against 187 objectives of the POI. Of the 1,366 survey items, 855 were not matched to POI objectives. Many of these 855 knowledge items had sufficient members performing (greater than 30 percent) in at least one of the AFSCs to justify being referenced in the POI; however, it is also understood that when only one AFSC has 30 percent or greater members performing, and the others do not, this may be an item that could best be taught in a separate block or, perhaps, through OJT or at a follow-on training school. For this reason, it was necessary to examine the data in several ways.

First, the Electronics Principles were screened to identify those where there were 30 percent or more members performing a survey knowledge item in at least 4 of the AFSCs, (4 was chosen because it represents 50 percent of those AFSCs which utilize the Sheppard EPI course). A secondary screening was made for items where at least 50 percent members are performing in at least 4 AFSCs, and, finally, where 30 percent or more are performing in only 1 AFSC. These data were then compared to the POI match to determine if survey items matched to POI paragraphs and subparagraphs had sufficient percent members performing (at least 30 percent) to justify their being trained.

Many of those survey items which were not matched to the POI were found to have extremely high percent members performing figures in at least 4 AFSCs, while many of those tasks which were matched had an extremely low percent members performing across all 8 AFSCs (less than 30 percent). For specific examples of these areas, refer to Table 6 (where only 1 AFSC has 30 percent or more members performing), Table 7 (where at least 30 percent are performing in at least 4 of the AFSCs), and Table 8 (where at least 50 percent are performing across at least 4 AFSCs). A complete listing of all knowledge items and their corresponding percent members performing figures can be found in the FACPTS which accompany this report.

TABLE 6

EXAMPLES OF TASKS NOT MATCHED TO POI WITH 30 PERCENT OR MORE MEMBERS PERFORMING IN 1 AFSC

SURVEY KNOWLEDGE ITEMS	PERCENT MEMBERS PERFORMING BY AFSC									
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850		
DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	38	6	0	6	1	10	0	25		
DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	33	4	0	6	1	0	0	11		
DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	30	5	17	0	4	0	0	27		
DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTIONS?	30	4	3	6	4	0	0	16		
DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?	26	16	7	0	4	0	1	39		
DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?	23	12	14	19	4	5	1	30		
DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD	12	5	4	6	11	33	1	23		

All Percent Members Performing Figures Rounded to the Nearest Whole Number

TABLE 7

EXAMPLES OF TASKS NOT MATCHED TO POI WITH 30 PERCENT OR MORE MEMBERS PERFORMING ACROSS 4 OR MORE AFSCs

SURVEY KNOWLEDGE ITEMS	PERCENT MEMBERS PERFORMING BY AFSC									
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850		
IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS	86	35	38	44	3	15	2	77		
DO YOU USE OR REFER TO LEDS?	61	44	31	31	12	5	3	50		
DO YOU EXTEND THE RANGE OF VOLTMETERS?	38	40	41	25	37	24	25	52		
DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	46	20	0	31	9	38	8	84		
DO YOU CLEAN FILTER CIRCUITS?	47	31	0	25	9	33	8	52		
DO YOU ZERO AMMETERS?	24	29	31	63	32	14	24	57		
DO YOU INSPECT FILTER CIRCUITS?	55	37	0	31	9	43	11	71		
DO YOU INSPECT TRANSISTOR AMPLIFIERS?	39	22	0	31	11	48	6	34		
DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	36	18	0	31	12	48	5	80		

All Percent Members Performing Figures Rounded to the Nearest Whole Number

TABLE 8

EXAMPLES OF TASKS NOT MATCHED TO POI WITH 50 PERCENT OR MORE MEMBERS PERFORMING ACROSS 4 OR MORE AFSCs

SURVEY KNOWLEDGE ITEMS	PERCENT MEMBERS PERFORMING BY AFSC							
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850
IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES?	86	84	7	75	76	81	79	93
DO YOU ALIGN OR ADJUST POWER SUPPLIES?	86	68	62	75	35	76	19	91
DO YOU TROUBLESHOOT RELAYS?	73	61	66	81	80	81	75	93
DO YOU TROUBLESHOOT POWER SUPPLY COMPONENTS?	86	68	69	75	29	81	39	93
DO YOU DISCHARGE CAPACITORS?	83	71	0	63	44	67	28	86
DO YOU REMOVE OR REPLACE RELAYS?	74	64	24	81	76	81	61	91
DO YOU PERFORM HIGH RELIABILITY SOLDERING?	73	62	0	75	59	71	47	36
DO YOU CLEAN RESISTORS?	64	63	3	69	42	67	16	73

All Percent Members Performing Figures Rounded to the Nearest Whole Number

Many of the items matched to paragraphs in the POI did not have even 30 percent responding in any 1. Table 9 gives examples of these survey items. These items should be considered for deletion.

Summary

After a careful review of the POI and survey knowledge items, both matched and unmatched, the following findings were noted:

1. Many of the items matched with the POI had very low percent members performing figures across all AFSCs.

2. Of the survey items which were not matched to the course POI, many had 30 percent members performing, or greater, across at least 4 (usually more) AFSCs.

3. Personnel in the 918 AFS have a much higher average of percent members performing in most items, and seem to be using more than any of the other AFSSs. Careful consideration should be given to the data concerning the treatment of this AFS.

The EPI is unlike the standard OSR in that survey items are knowledge items, rather than tasks. This difference makes a review of the course POI a difficult task requiring that each item be reviewed individually. The need for this individual reviewing process is due to the fact that knowledge items may be required as building blocks in a process to the understanding of more difficult areas. It is suggested that training personnel consider this as they review the course POI in relation to percent members performing figures for independent survey items.

This information should be useful to training personnel in updating their POI. The data seem to support a need for this, as displayed by the tables. Many items referenced had percent members performing figures which did not justify continued inclusion in the POI, and many items not referenced had high enough percent members performing to justify inclusion.

For an in-depth study of survey data by training personnel, computer FACPRTS have been provided in the following pages. For assistance in interpreting and using these data, please contact 2d Lt Howard Goodman, USAFOMC/OMYO (AUTOVON 487-5811).

TABLE 9

EXAMPLES OF TASKS MATCHED TO POI WITH LOW PERCENT MEMBERS PERFORMING

SURVEY KNOWLEDGE ITEMS	PERCENT MEMBERS PERFORMING BY AFSC							
	DAFSC 30651	DAFSC 30652	DAFSC 31650F	DAFSC 31652F	DAFSC 36251	DAFSC 36253	DAFSC 36254	DAFSC 91850
POI TITLE I IIA								
DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	17	11	3	6	13	0	3	23
DO YOU USE OR REFER TO FLUX DENSITY?	11	6	0	6	7	0	2	16
DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?	3	4	0	6	5	0	3	
POI TITLE III 1C								
DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS?	5	3	0	6	1	0	2	13
DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT?	3	5	3	6	3	5	1	18
POI TITLE IV 1F								
DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?	5	3	0	0	1	0	1	23
POI TITLE VI 2C								
DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC CIRCUITS?	8	5	0	6	1	0	0	16
DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC CIRCUITS?	8	6	0	13	1	0		

All Percent Members Performing Figures Are Rounded to the Nearest Whole Number

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SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

SHEPPARD EPI CAREER LADDERS, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OR PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA: THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE SYS. CRITERIA LISTED IN ATCR 52-22 FOR ABR TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMVO, AUTOVON 987-5011.

VECTOR TYPE CODES:

- (T) = % TIME SPENT BY ALL MEMBERS
- (M) = % MEMBERS PERFORMING
- (F) = TASK FACTOR
- (D) = DICHOTOMOUS SET
- (B) = % TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	/MEMBERS/		DESCRIPTION	FACTOR #
			MEAN	SD		
1	M	306 51	66		DAFSC 30651 AIRMEN	2
2	M	306 52	161		DAFSC 30652 AIRMEN	4
3	M	31650F	29		DAFSC 31650F AIRMEN	6
4	M	31652F	16		DAFSC 31652F AIRMEN	8
5	M	362 51	106		DAFSC 36251 AIRMEN	10
6	M	362 53	21		DAFSC 36253 AIRMEN	12
7	M	362 54	114		DAFSC 36254 AIRMEN	14
8	M	918 50	44		DAFSC 91850 AIRMEN	16

SHEPPARD EPI CAREER LADDERS, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OR PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA: THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATCR 52-22 FOR ARR TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMYO, AUTOVON 487-5811.

D	TSK	TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
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A MATHEMATICS (A1), DIRECT CURRENT (A2), RESISTANCE AND
RESISTIVE CIRCUITS (A3)

- A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?
- A 2 A1-2 DO YOU USE PUBLICATIONS, SUCH AS TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB?
- A 3 A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?
- A 4 A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?
- A 5 A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $x + 6 = 8$?
- A 6 A1-6 DO YOU USE LOGARITHM TABLES?
- A 7 A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $x^2 + 4x + 4 = 0$?
- A 8 A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
- A 9 A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?
- A 10 A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS $2 : 5 :: 4 : 10$. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS $2/5 = 4/10$. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS $2 : x :: 4 : 10$ (X IN THIS CASE IS UNKNOWN).
- A 11 A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?
- A 12 A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?

69.7	73.9	65.5	81.3	69.8	71.4	48.2	97.7
33.3	32.3	27.6	68.8	34.9	47.6	21.1	70.5
27.3	13.7	13.8	68.8	17.0	4.8	8.8	77.3
7.6	6.2	.0	12.5	7.5	.0	3.5	36.4
15.2	11.2	10.3	43.8	17.9	4.8	10.5	68.2
3.0	3.1	.0	.0	3.8	4.8	1.8	15.9
3.0	2.5	.0	.0	4.7	.0	2.6	27.3
3.0	4.3	.0	6.7	1.9	4.8	.9	18.2
7.6	4.3	.0	6.3	2.8	4.8	1.8	15.9
15.2	9.9	10.3	37.5	9.4	23.8	5.3	61.4
31.8	13.0	6.9	37.5	12.3	9.5	3.5	54.5
92.4	95.7	100.0	100.0	94.3	100.0	95.6	100.0

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSK	TITLES	306 (M)	306 (M)	316 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
A 13	A2-2 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTROMOTIVE FORCE (EMF)?	39.4	49.7	13.8	25.0	38.7	38.1	27.2	72.7	
A 14	A2-3 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM OHM?	86.4	91.9	89.7	100.0	91.5	90.5	83.3	100.0	
A 15	A2-4 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ION?	6.1	7.5	10.3	81.3	7.5	.0	3.5	72.7	
A 16	A2-5 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM DYNE?	1.5	5.0	6.9	.0	2.8	.0	4.4	29.5	
A 17	A2-6 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?	83.3	88.8	75.9	87.5	87.7	85.7	73.7	100.0	
A 18	A2-7 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM NEUTRON?	18.2	14.9	6.9	14.8	13.2	.0	4.4	54.5	
A 19	A2-8 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM COULOMB?	6.1	8.1	6.9	6.3	5.7	9.5	.9	54.5	
A 20	A2-9 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM PROTON?	19.7	16.1	3.4	18.8	16.0	.0	3.5	56.8	
A 21	A2-10 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTRON?	40.9	42.9	24.1	56.3	30.2	33.3	10.5	72.7	
A 22	A2-11 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?	89.4	92.5	89.7	100.0	88.7	95.2	82.5	100.0	
A 23	A2-12 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM WATTAGE?	60.6	73.9	89.7	81.3	60.4	66.7	43.9	97.7	
A 24	A2-13 DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?	24.2	34.2	17.2	56.3	48.1	28.6	33.3	79.5	
A 25	A. I DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES, GO TO BUE.	80.3	78.3	17.2	62.5	68.9	71.4	43.0	77.3	
A 26	A. 2 DO YOU INSPECT RESISTORS?	83.3	82.6	3.4	81.3	60.4	85.7	36.0	90.9	
A 27	A3-3 DO YOU CLEAN RESISTORS?	63.6	62.7	3.4	68.8	41.5	66.7	15.8	72.7	
A 28	A3-4 DO YOU ADJUST RESISTORS?	80.3	77.0	6.9	75.0	47.2	76.2	20.2	97.7	

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TASK TITLES

- A 29 A3-5 DO YOU MEASURE RESISTORS?
A 30 A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS OR ANY TASK YOU PERFORM?
A 31 A3-7 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY CARBON?
A 32 A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED WIRE?
A 33 A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?
A 34 A3-10 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY RHEOSTAT?
A 35 A3-11 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY POTENTIOMETER?
A 36 A3-12 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?
A 37 A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE?
A 38 A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?
A 39 A3-15 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?
A 40 A3-16 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?
A 41 A3-17 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
A 42 A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
A 43 A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE CIRCUITS?

306	306	316	316	316	362	362	362	918
51	52	50F	52F	51	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
81.8	80.7	13.8	81.3	66.0	85.7	33.3	97.7	
19.7	17.4	.0	25.0	15.1	4.8	2.6	52.3	
27.3	37.3	6.9	56.3	46.2	42.9	21.9	72.7	
62.1	61.5	6.9	62.5	67.0	61.9	36.0	90.9	
16.7	29.2	.0	56.3	23.6	33.3	7.9	90.9	
50.0	57.8	10.3	75.0	63.2	61.9	37.7	97.7	
84.8	77.0	13.8	75.0	63.2	66.7	32.5	97.7	
16.7	9.3	3.4	31.3	13.2	19.0	2.6	59.1	
78.8	74.5	6.9	75.0	59.4	76.2	23.7	97.7	
68.2	64.0	3.4	62.5	48.1	71.4	12.7	93.2	
30.3	30.4	3.4	50.0	25.5	33.3	6.1	67.7	
84.8	82.6	27.6	75.0	74.5	76.2	46.0	98.5	
59.1	54.7	13.8	56.3	37.8	61.9	77.7	90.9	
53.0	54.7	10.3	50.3	50.0	67.7	77.7	89.7	
56.1	56.5	13.3	58.0	45.3	61.9	77.7	97.7	

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSK TITLES

206 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	52 (M)	53 (M)	54 (M)	918 (M)
40.0	41.0	13.8	50.0	33.0	23.8	12.3	72.7			
51.5	52.8	13.8	37.5	49.1	61.9	26.3	84.1			
47.0	54.0	10.3	43.8	48.1	47.6	27.2	66.4			
47.0	56.5	13.8	37.5	41.5	42.9	20.2	95.5			
42.4	47.2	6.9	31.3	35.8	33.3	19.3	88.6			
37.9	41.0	10.3	31.3	31.1	23.8	10.5	72.7			
53.0	51.6	13.8	37.5	46.2	57.1	20.2	81.8			
48.5	52.8	10.3	37.5	46.2	42.9	21.9	84.1			
45.5	52.8	10.3	37.5	39.6	38.1	17.5	88.6			
39.4	45.3	6.9	31.3	36.8	28.6	15.8	86.4			
34.8	37.3	10.3	31.3	32.1	19.0	9.6	70.5			
45.5	44.7	10.3	37.5	42.5	47.6	16.7	79.5			
39.4	42.2	10.3	37.5	41.5	23.8	16.7	81.8			
37.9	42.9	6.9	37.5	38.7	23.8	13.2	88.6			

A 44 A3-20 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
 A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
 A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
 A 47 A3-23 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
 A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
 A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
 A 50 A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
 A 51 A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
 A 52 A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
 A 53 A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
 A 54 A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
 A 55 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
 A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
 A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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SHEPARD ELECTRONIC PRINCIPLES INVENTORY DATA										OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (AIC) RANDOLPH AFB TX											
D YSK		TITLES		FCPT01		PAGE		7		FCPT01		PAGE		7		FCPT01		PAGE			
A 58		A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?		306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)										
A 59		A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?		31.8	36.6	6.9	37.5	34.9	19.0	12.3	81.8										
				25.8	30.4	6.9	31.3	30.2	14.3	7.9	70.5										

B		METERS/MULTIMETERS (B1), ALTERNATING CURRENT (AC) (B2), INDUCTORS AND INDUCTIVE REACTANCE (B3)		-----																	

8 60		B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?		81.8	88.2	82.8	87.5	77.4	85.7	74.6	100.0										
3 61		B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?		86.4	91.3	93.1	87.5	97.6	85.7	82.7	100.0										
5 62		B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?		71.2	84.5	51.7	81.3	84.0	66.7	68.0	97.7										
3 63		B1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE POWER?		36.4	47.2	74.5	21.3	52.8	42.9	37.7	50.1										
3 64		B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?		68.0	49.1	74.5	75.0	59.9	71.4	55.4	84.1										
5 65		B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?		24.2	7.5	37.9	81.3	38.7	28.4	5.7	66.8										
9 66		B1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE PRESSURE?		36.8	8.7	34.9	67.7	55.0	4.0	6.1	37.7										
3 67		B1-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE LIGHT LEVELS?		33.3	1.9	6.9	3.0	1.9	1.7	4.1	97.7										
3 68		B2-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?		45.5	47.8	22.7	77.5	77.4	52.4	34.7	60.0										

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TASK TITLES

	306	309	316	316	316	362	362	362	918
	51	52	50F	52F	51	53	54	50	(M)
	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
B 69 B2-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?	80.3	68.9	13.8	81.3	30.2	76.2	14.9	93.2	
B 70 B2-3 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM AVERAGE VOLTAGE (DC) IN YOUR PRESENT JOB?	51.5	62.1	31.0	75.0	43.4	57.1	28.9	86.4	
B 71 B2-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM WAVE LENGTH IN YOUR PRESENT JOB?	53.0	46.0	13.8	75.0	36.8	47.6	7.9	81.8	
B 72 B2-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM FREQUENCY IN YOUR PRESENT JOB?	72.7	59.6	51.7	68.8	63.2	90.5	20.2	93.2	
B 73 B2-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?	12.1	13.7	3.4	18.8	10.4	.0	.9	52.3	
B 74 B2-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?	54.5	37.3	27.6	50.0	21.7	23.8	5.3	88.6	
B 75 B3-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C1-1; IF YES, CONTINUE.	37.9	36.6	6.9	37.5	21.7	14.3	12.3	68.2	
B 76 B3-2 DO YOU INSPECT INDUCTORS?	40.9	38.5	.0	56.3	18.9	14.3	7.9	75.0	
B 77 B3-3 DO YOU CLEAN INDUCTORS?	31.8	28.6	.0	56.3	14.2	9.5	6.1	59.1	
B 78 B3-4 DO YOU ADJUST INDUCTORS?	18.2	19.3	3.4	43.8	13.2	.0	1.8	56.8	
B 79 B3-5 DO YOU MEASURE INDUCTORS?	25.8	28.0	.0	43.8	17.0	9.5	3.5	61.4	
B 80 B3-6 DO YOU USE OR REFER TO INDUCTANCE?	31.8	31.7	.0	50.0	21.7	14.3	6.1	81.8	
B 81 B3-7 DO YOU USE OR REFER TO HENRIES?	21.2	20.5	.0	18.8	13.2	4.8	1.8	68.2	
B 82 B3-8 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?	13.6	18.6	.0	18.8	17.0	9.5	1.8	63.6	
B 83 B3-9 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?	6.1	3.7	.0	.0	7.5	.0	.9	36.4	
B 84 B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?	6.1	5.0	.0	.0	3.8	.0	.9	34.1	
B 85 B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS?	4.5	6.2	.0	.0	9.4	.0	.9	38.6	
B 86 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL?	10.6	9.9	.0	.0	12.3	4.8	2.6	36.4	

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B 87 B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS
SECTIONAL AREA OF THE CORE?

B 88 B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS
LENGTH?

B 89 B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE
PERMEABILITY OF THE CORE MATERIAL?

B 90 B3-16 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC
CIRCUITS?

B 91 B3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT
LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?

B 92 B3-18 DO YOU CALCULATE INDUCTIVE REACTANCE?

B 93 B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO
FREQUENCY?

B 94 B3-20 DO YOU WORK WITH POWER INDUCTORS?

B 95 B3-21 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?

B 96 B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?

C CAPACITORS AND CAPACITIVE REACTANCE (C1), TRANSFORMERS (C2),
MAGNETISM (C3)

C 97 C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING
CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1.
IF YES, CONTINUE.

C 98 C1-2 DO YOU INSPECT CAPACITORS?

C 99 C1-3 DO YOU CLEAN CAPACITORS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
6.1	7.5	.0	.0	10.4	4.8	1.8	31.8
4.5	6.8	.0	6.3	9.4	4.8	1.8	29.5
7.6	8.1	.0	6.3	11.3	4.8	2.6	36.4
4.5	9.3	.0	37.5	10.4	.0	4.4	36.4
12.1	18.0	.0	12.5	14.2	14.3	4.4	61.4
7.6	9.3	.0	6.2	10.4	.0	3.5	49.9
6.1	9.3	.0	6.3	16.0	9.5	2.6	43.2
25.8	26.1	6.9	31.3	13.2	8.9	4.4	63.6
16.7	11.2	3.4	.0	16.0	0.5	6.1	52.7
13.6	9.3	3.4	.0	7.5	1.0	1.9	50.2
80.3	75.8	17.2	75.0	52.3	57.1	10.4	93.7
83.3	82.0	.0	81.7	56.6	75.2	33.3	97.7
57.6	64.6	.0	69.8	45.3	47.6	15.4	61.4

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- C 119 C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?
- C 120 C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?
- C 121 C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?
- C 122 C1-26 DO YOU WORK WITH VARIABLE CAPACITORS?
- C 123 C1-27 DO YOU WORK WITH TRIMMER CAPACITORS?
- C 124 C1-28 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?
- C 125 C1-29 DO YOU WORK WITH OTHER FIXED CAPACITORS?
- C 126 C2-1 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C3-1; IF YES, CONTINUE.
- C 127 C2-2 DO YOU INSPECT TRANSFORMERS?
- C 128 C2-3 DO YOU CLEAN TRANSFORMERS?
- C 129 C2-4 DO YOU ADJUST TRANSFORMERS?
- C 130 C2-5 DO YOU IMPULSESHOOT TRANSFORMERS?
- C 131 C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTANCE AND MUTUAL INDUCTANCE (M)?
- C 132 C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?
- C 133 C2-8 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS?
- C 134 C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS?
- C 135 C2-10 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS?
- C 136 C2-11 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS?
- C 137 C2-12 DO YOU WORK WITH AUTO TRANSFORMERS?
- C 138 C2-13 DO YOU WORK WITH POWER TRANSFORMERS?
- C 139 C2-14 DO YOU WORK WITH AUDIO TRANSFORMERS?
- C 140 C2-15 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?

306	306	316	362	362	362	918
51	52	50F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)
18.2	24.2	.0	18.8	23.6	23.6	10.5
12.1	13.7	.0	.0	18.9	9.5	7.2
12.1	8.1	.0	6.7	14.2	.0	3.5
27.3	25.5	.0	31.2	17.0	14.3	17.2
10.1	14.7	.0	18.8	8.5	.7	2.6
84.8	75.8	3.6	68.8	50.3	71.4	60.7
70.7	68.8	3.8	61.3	41.2	67.1	55.1
71.2	67.7	27.5	75.0	28.2	67.1	17.0
69.7	67.7	1.3	68.0	28.1	16.7	17.0
51.5	59.0	1.1	55.0	27.4	17.2	17.0
19.7	24.8	1.3	47.2	17.3	9.1	17.0
60.6	55.2	10.2	10.2	1.3	1.3	17.0
7.0	7.1	1.1	1.1	1.1	1.1	17.0
6.5	3.1	1.1	1.1	1.1	1.1	17.0
1.1	1.1	1.1	1.1	1.1	1.1	17.0
17.0	1.2	1.1	1.1	1.1	1.1	17.0
17.0	8.1	1.1	1.1	1.1	1.1	17.0
6.1	2.7	1.1	1.1	1.1	1.1	17.0
7.6	6.3	1.1	1.1	1.1	1.1	17.0
24.0	29.3	17.2	1.1	1.1	1.1	17.0
13.0	14.3	7.0	1.1	1.1	1.1	17.0
12.1	7.5	1.1	1.1	1.1	1.1	17.0

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D TSK	TITLES	306 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
C 141	C2-16 DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?	3.0	4.3	.0	25.0	2.8	.0	.0	36.4
C 142	C2-17 DO YOU WORK WITH SENSING TRANSFORMERS?	6.1	3.1	3.4	18.8	4.7	.0	.9	31.8
C 143	C2-18 DO YOU WORK WITH CONTROL TRANSFORMERS?	13.6	9.3	3.4	25.0	8.5	.0	2.6	59.1
C 144	C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	56.1	60.2	3.4	62.5	25.5	47.6	11.4	93.2
C 145	C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	53.0	55.9	3.4	56.3	23.6	47.6	13.2	84.1
C 146	C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	59.1	50.3	3.4	43.8	18.9	38.1	12.3	81.8
C 147	C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	19.7	26.1	.0	6.3	9.4	19.0	2.6	50.0
C 148	C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	27.3	35.4	.0	12.5	13.2	33.3	4.4	86.4
C 149	C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?	74.2	69.6	24.1	75.0	29.2	66.7	20.2	95.5
C 150	C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	62.1	46.0	10.3	68.8	20.8	38.1	11.4	95.5
C 151	C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	54.5	52.2	13.8	62.5	18.9	33.3	8.8	95.5
C 152	C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	69.7	62.7	13.8	68.8	23.6	38.1	8.8	95.5
C 153	C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	27.3	16.1	6.9	25.0	13.2	14.3	4.4	59.1
C 154	C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	37.9	24.2	3.4	25.0	17.9	23.8	8.8	70.5
C 155	C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?	19.7	27.3	3.4	56.3	17.0	23.8	5.3	86.4
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	45.5	36.0	10.3	62.5	16.0	38.1	7.9	90.9

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C 157	C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	51 (M)	362 (M)	362 (M)	51 (M)	51 (M)	918 (M)
C 158	C2-33 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH?	22.7	8.1	.0	12.5	6.6	4.8	2.6	36.4					
C 159	C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	16.7	12.4	.0	18.8	4.7	14.3	.9	65.9					
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	28.4	36.0	.0	31.7	9.4	23.8	6.1	86.4					
C 161	C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	15.2	7.5	.0	6.3	2.8	14.3	.0	52.3					
C 162	C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	10.6	6.2	.0	6.3	2.2	4.2	.0	24.1					
C 163	C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?	16.7	6.2	13.8	43.8	5.7	.0	.0	81.4					
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	13.6	5.6	6.9	31.7	7.5	.0	1.5	77.7					
C 165	C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?	6.1	3.7	.0	6.3	5.7	.0	.0	54.3					
C 166	C2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?	.0	3.1	.0	6.7	5.7	.0	.0	51.8					
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	7.6	3.7	.0	31.3	5.7	.0	.0	72.7					
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	27.3	44.7	10.3	31.3	20.8	23.8	17.5	50.3					
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	34.8	39.1	3.4	37.1	29.2	28.6	14.3	45.1					
C 170	C3-3 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS?	10.6	8.7	3.4	6.3	16.8	.0	2.6	77.1					
C 171	C3-4 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	16.7	11.2	3.4	6.7	13.2	.0	2.3	42.7					
C 172	C3-5 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	12.1	10.6	3.4	6.3	14.2	.0	3.5	25.0					
C 173	C3-6 DO YOU USE OR REFER TO RESIDUAL MAGNETISM?	13.6	20.5	3.4	12.5	57.5	14.3	6.1	29.3					
C 174	C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?	21.2	18.6	6.9	12.5	17.6	4.8	8.1	47.1					

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306	306	316	316	362	362	918
51	52	50F	51	54	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)

C 175 C3-8 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?
C 176 C3-9 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?
C 177 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION?
C 178 C3-11 DO YOU USE OR REFER TO FLUX DENSITY?
C 179 C3-12 DO YOU USE OR REFER TO SATURABLE REACTANCE?

6.1	3.7	.0	.0	3.8	.0	3.5	15.9
3.0	3.7	.0	6.3	4.7	.0	2.6	15.9
22.7	21.7	3.4	6.3	18.9	9.5	10.5	45.5
10.6	5.6	.0	6.3	6.6	.0	1.8	15.9
4.5	3.7	.0	6.3	9.4	.0	1.8	18.2

D RCL CIRCUITS (01), TIME CONSTANTS (02), FILTERS (03)

D 180 D1-1 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.
D 181 D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?

31.8	25.5	3.4	12.5	9.4	14.3	4.4	77.3
4.5	3.1	.0	.0	2.8	4.8	.0	29.5

D 182 D1-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?
D 183 D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?

6.1	3.7	.0	.0	4.7	4.8	.0	22.7
7.6	1.9	.0	6.3	4.7	.0	.0	25.0

D 184 D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?
D 185 D1-6 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS?

6.1	1.9	.0	6.3	4.7	.0	.0	22.7
3.0	1.9	.0	.0	4.7	.0	.0	27.3

D 186 D1-7 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?
D 187 D1-8 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?

16.7	16.1	3.4	18.8	6.6	4.8	2.6	54.5
6.1	6.2	.0	.0	4.7	.0	.9	29.5

D 188 D1-9 DO YOU USE OR REFER TO MAXIMUM POWER (P SUB M) WHEN WORKING WITH RCL CIRCUITS?
D 189 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (P SUB AVE) WHEN WORKING WITH RCL CIRCUITS?

4.5	5.6	.0	.0	5.7	.0	.0	27.3
6.1	6.2	.0	.0	4.7	.0	.0	31.8

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D TSK	TITLES	306 (M)	306 (M)	52 (M)	316 (M)	15	362 (M)	362 (M)	54 (M)	918 (M)
D 190	D1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?	3.0	5.0	.0	.0	.0	4.7	.0	.0	20.5
D 191	D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?	4.5	6.2	.0	.0	.0	4.7	.0	.0	25.0
D 192	D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	12.1	8.1	.0	6.3	5.7	4.8	2.6	54.5	
D 193	D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?	7.6	5.6	.0	12.5	1.9	4.8	.0	40.9	
D 194	D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS?	6.1	4.3	.0	6.3	3.8	9.5	.0	29.5	
D 195	D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?	10.6	6.2	.0	12.5	3.8	4.8	.0	52.3	
D 196	D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?	4.5	4.3	.0	6.3	1.9	.0	.0	29.5	
D 197	D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?	3.0	4.3	.0	.0	1.9	.0	.0	38.6	
D 198	D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?	6.1	1.9	.0	.0	.9	.0	.0	22.7	
D 199	D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	16.7	11.8	.0	6.3	1.9	.0	.0	63.6	
D 200	D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS USING FORMULAS SUCH AS: SINE OF AND ANGLE = OPPOSITE SIDE/HYPOTENUSE?	1.5	1.9	.0	.0	2.8	.0	.0	13.6	
D 201	D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?	4.5	4.3	.0	6.3	3.8	4.8	.9	25.0	
D 202	D1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?	10.6	10.6	.0	.0	6.6	4.8	.9	29.5	
D 203	D1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?	6.1	3.7	.0	.0	4.7	.0	.0	25.0	
D 204	D1-25 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?	4.1	8.1	.0	.0	7.3	4.8	.9	38.6	

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C TASK TITLES

D 205	D1-26 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS?	306	306	316	316	362	362	362	918
		51 (M)	52 (M)	50F (M)	52F (M)	51 (M)	53 (M)	54 (M)	50 (M)
D 206	D1-27 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR SERIES RCL CIRCUITS?	4.5	3.7	.0	.0	4.7	4.8	.0	20.5
		3.0	3.1	.0	.0	2.8	.0	.0	15.9
D 207	D1-28 DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR SERIES RCL CIRCUITS?	4.5	5.6	.0	.0	2.8	.0	.0	25.0
D 208	D1-29 DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES RCL CIRCUITS?	3.0	5.0	.0	.0	2.8	.0	.0	22.7
D 209	D1-30 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL CIRCUITS?	16.7	10.6	.0	6.3	4.7	4.8	.9	43.2
D 210	D1-31 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS?	4.5	2.5	.0	.0	3.8	.0	.0	18.2
D 211	D1-32 DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?	6.1	4.3	.0	.0	2.8	.0	.0	20.5
D 212	D1-33 DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?	18.2	10.6	.0	12.5	7.5	4.8	1.8	45.5
D 213	D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS?	34.8	27.3	.0	18.8	10.4	28.6	7.9	72.7
D 214	D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION?	21.2	15.5	.0	12.5	3.8	19.0	2.6	61.4
D 215	D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS?	24.2	23.6	.0	18.8	8.5	19.0	4.4	65.9
D 216	D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?	13.6	13.0	.0	6.3	3.8	14.3	3.5	50.0
D 217	D1-38 DO YOU CHECK RESISTORS USING OHMMETERS?	37.9	27.3	.0	25.0	12.3	28.6	7.9	77.3
D 218	D1-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?	18.2	13.7	.0	6.3	3.8	19.0	3.5	52.3
D 219	D1-40 DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE (THETA) = 0, POWER FACTOR (PF) = 1, AND APPARENT POWER (P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?	3.0	3.1	.0	.0	2.8	.0	.9	13.6
D 220	D1-41 DO YOU USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS?	6.1	6.2	.0	6.3	4.7	.0	1.8	50.0
D 221	D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS?	6.1	5.6	.0	6.3	3.8	.0	.9	43.2

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O TSK

D 222	D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS?	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 (M)
D 223	D1-44 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 OF THE PEAK CURRENT VALUE?	6.1	5.6	.0	.0	1.9	.0	.0	.0	36.4
D 224	D1-45 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL (Q)?	6.1	6.2	.0	.0	1.9	.0	.0	.0	38.6
D 225	D1-46 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS?	1.5	3.7	.0	.0	.9	.0	.0	.0	27.3
D 226	D2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS? IF NO, GO TO ITEM D3-1; IF YES, CONTINUE.	6.1	6.2	.0	.0	4.7	9.5	.0	.0	31.8
D 227	D2-2 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)?	10.6	5.6	.0	.0	2.8	.0	.0	.0	38.6
D 228	D2-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?	10.6	3.7	.0	.0	3.8	.0	.9	.9	34.1
D 229	D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS?	4.5	3.7	3.4	.0	.9	.0	.9	.9	22.7
D 230	D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS?	4.5	3.1	.0	.0	.9	.0	.9	.9	22.7
D 231	D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES?	3.0	4.3	.0	.0	.9	.0	.0	.0	22.7
D 232	D2-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS?	4.5	3.1	.0	.0	1.9	.0	.0	.0	29.5

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D TSM TITLES

D 233	O3-1	DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	53 (M)	54 (M)	918
D 234	O3-2	DO YOU INSPECT FILTER CIRCUITS?	6P.2	42.2	6.9	31.3	11.3	57.1	18.4	75.0		
D 235	O3-3	DO YOU CLEAN FILTER CIRCUITS?	54.5	36.6	.0	31.3	8.5	42.9	10.5	70.5		
D 236	O3-4	DO YOU ALIGN OR ADJUST FILTER CIRCUITS?	47.0	31.1	.0	25.0	8.5	33.3	7.9	52.3		
D 237	O3-5	DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?	28.8	16.1	.0	25.0	5.7	28.6	5.3	68.2		
D 238	O3-6	DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?	56.1	29.8	.0	31.3	5.7	47.6	12.3	77.3		
D 239	O3-7	DO YOU WORK WITH LOW PASS FILTERS?	57.6	31.7	6.9	25.0	4.7	14.3	7.0	77.3		
D 240	O3-8	DO YOU WORK WITH HIGH PASS FILTERS?	34.8	20.5	.0	12.5	2.8	52.4	.9	61.4		
D 241	O3-9	DO YOU WORK WITH BANDPASS FILTERS?	24.2	16.8	.0	12.5	4.7	28.6	.9	61.4		
D 242	O3-10	DO YOU WORK WITH BAND-REJECT FILTERS?	18.2	6.2	.0	6.3	3.8	14.3	2.6	52.3		
D 243	O3-11	DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?	7.6	3.7	.0	12.5	3.8	4.8	.9	31.8		
D 244	O3-12	DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?	31.8	22.4	6.9	25.0	7.5	9.5	14.0	29.5		
D 245	O3-13	DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?	24.2	9.3	.0	6.3	.9	4.8	2.6	38.6		
D 246	O3-14	DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?	18.2	8.1	.0	12.5	.9	.0	1.8	36.4		
D 247	O3-15	DO YOU WORK WITH YTTRIUM IRON GARNET (YIG) FILTERS?	18.2	8.7	.0	6.3	1.9	.0	1.8	38.1		
D 248	O3-16	DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS?	.0	.0	.0	6.3	.9	.0	.0	9.1		
			9.1	1.9	.0	6.3	1.9	.0	.9	18.2		

E COUPLING (E1), SOLDERING OF SOLDERLESS CONNECTIONS (E2), RELAYS (E3)

E 249	E1-1	DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.	45.5	24.2	.0	18.8	7.5	14.3	7.9	79.5		
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D TSK	TITLES	FCPT01 PAGE 19							
		306 (M)	316 (M)	326 (M)	336 (M)	346 (M)	356 (M)	366 (M)	376 (M)
E 250	E1-2 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING?	47.0	19.9	.0	25.0	4.7	9.5	.9	77.3
E 251	E1-3 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING (MATCHING)?	37.0	14.9	.0	6.3	4.7	14.3	5.3	68.2
E 252	E1-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH OPTICAL COUPLING?	4.5	7.5	.0	6.3	2.8	.0	.0	45.5
E 253	E1-5 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING?	24.2	19.3	.0	18.8	5.7	14.3	4.4	68.2
E 254	E1-6 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING?	47.0	19.9	.0	18.8	5.7	9.5	.9	81.8
E 255	E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING?	36.4	13.7	.0	6.3	6.6	14.3	6.1	72.7
E 256	E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING?	27.3	17.4	.0	18.8	7.5	19.3	4.4	70.5
E 257	E1-9 DO YOU WORK WITH DIRECT COUPLED CIRCUITS?	37.9	22.4	.0	18.8	5.7	14.3	3.5	81.8
E 258	E1-10 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS?	43.9	18.6	.0	18.8	5.7	9.5	2.6	79.5
E 259	E1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	19.7	16.8	.0	6.3	5.7	4.8	2.5	70.5
E 260	E1-12 DO YOU WORK WITH OPTICAL COUPLING?	4.5	6.2	.0	.0	2.8	.0	.0	43.2
E 261	E1-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?	4.5	6.2	.0	.0	2.8	.0	.0	40.9
E 262	E1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?	22.7	16.1	.0	18.8	6.6	14.3	4.4	70.5
E 263	E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.	86.4	83.9	6.9	75.0	76.4	81.0	78.9	97.7
E 264	E2-2 DO YOU SOLDER CONNECTIONS?	87.0	88.2	.0	81.7	84.0	81.0	86.1	97.7
E 265	E2-3 DO YOU DESOLDER CONNECTIONS?	87.0	88.2	.0	81.7	85.8	81.0	83.3	97.7

O TSM TITLES

E 266	E2-4	DO YOU PERFORM HIGH RELIABILITY SOLDERING?	306	306	316	316	362	362	362	918
E 267	E2-5	DO YOU INSPECT SOLDERED CONNECTIONS?	51	52	50F	52F	51	53	54	50
E 268	E2-6	DO YOU CLEAN OR TIN CONNECTIONS?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
E 269	E2-7	DO YOU MAKE HARDWIRE CONNECTIONS?	72.7	61.5	.0	75.0	58.5	71.4	46.5	86.4
E 270	E2-8	DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?	87.9	87.6	.0	81.3	85.8	81.0	79.8	95.5
E 271	E2-9	DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?	86.4	85.7	.0	81.3	83.0	81.0	78.9	95.5
E 272	E2-10	DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?	87.3	81.4	.0	81.3	79.2	71.4	80.7	90.9
E 273	E2-11	DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?	87.9	85.7	.0	81.3	38.7	57.1	21.1	95.5
E 274	E2-12	DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?	87.9	85.7	.0	81.3	69.8	81.0	32.5	97.7
E 275	E2-13	DO YOU PERFORM CHIMPING IN LIEU OF SOLDERING?	87.9	79.5	.0	75.0	48.1	71.4	22.8	95.5
E 276	E2-14	DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF SOLDERING?	81.8	47.8	.0	43.8	21.7	38.1	10.5	93.2
E 277	E3-1	DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.	68.2	31.1	.0	31.3	78.3	57.1	77.2	36.4
E 278	E3-2	DO YOU ADJUST RELAYS?	69.7	55.3	.0	81.3	46.2	38.1	50.9	84.1
E 279	E3-3	DO YOU CLEAN RELAYS?	15.2	8.7	.0	6.3	42.5	23.8	80.7	13.6
E 280	E3-4	DO YOU INSPECT RELAYS?	78.8	67.7	69.0	81.3	73.6	81.0	77.2	90.9
E 281	E3-5	DO YOU TROUBLESHOOT RELAYS?	36.4	39.1	.0	68.8	77.4	76.2	68.4	68.2
E 282	E3-6	DO YOU MONITOR RIAS OUTPUT ON RELAYS?	75.8	55.3	.0	75.0	80.2	81.0	78.9	90.9
E 283	E3-7	DO YOU REMOVE OR REPLACE RELAYS?	72.7	60.9	65.5	81.3	81.1	81.0	79.8	93.2
E 284	E3-8	DO YOU PERFORM TASKS ON COILS OF RELAYS?	22.7	15.5	3.4	12.5	29.2	81.0	75.4	93.2
E 285	E3-9	DO YOU PERFORM TASKS ON CORES OF RELAYS?	74.2	64.0	24.1	81.3	76.4	81.0	60.5	90.9
E 286	E3-10	DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?	68.2	51.6	10.3	81.3	81.1	81.0	76.3	93.2
E 287	E3-11	DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?	21.2	18.6	3.4	31.3	52.8	33.3	8.8	40.9
E 288	E3-12	DO YOU PERFORM TASKS ON SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	31.8	28.6	3.4	43.8	56.6	38.1	11.4	61.4
E 289	E3-13	DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	54.5	46.0	3.4	68.8	78.3	52.4	36.8	72.7
			57.6	45.3	3.4	68.8	82.1	61.9	54.4	77.3
			63.6	45.3	51.7	81.3	57.5	52.4	44.7	90.9

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D TASK TITLES

E 290 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?
E 291 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?
E 292 E3-18 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?
E 293 E3-17 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?
E 294 E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?

306	306	316	316	362	362	918
51	52	50F	52F	51	53	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)
63.6	44.7	51.7	81.3	57.5	52.4	45.6
50.0	33.5	48.3	81.3	50.0	42.9	46.5
51.5	33.5	48.3	81.3	48.1	38.1	43.9
51.5	34.8	34.5	81.3	68.9	47.6	48.2
50.0	47.2	10.3	68.8	66.0	57.1	31.6

F MICROPHONES AND SENSING DEVICES (F1), SPEAKERS (F2),
OSCILLOSCOPES (F3)

E 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.

E 296 F1-2 DO YOU INSPECT MICROPHONES?
E 297 F1-3 DO YOU CLEAN MICROPHONES?
E 298 F1-4 DO YOU OPERATE MICROPHONES?
E 299 F1-5 DO YOU TROUBLESHOOT MICROPHONES WIRE CONNECTIONS?
E 300 F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

6.1	6.2	13.8	31.3	7.5	66.7	20.2	75.0
1.5	3.7	.0	12.5	7.5	61.9	14.9	68.2
.0	3.7	.0	12.5	6.6	52.4	12.3	40.9
3.0	4.3	13.8	12.5	7.5	57.1	15.8	63.5
1.5	3.7	.0	12.5	8.5	57.1	15.8	63.5
1.5	3.1	.0	6.3	4.7	73.8	4.4	38.6

E 301 F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?
E 302 F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?
E 303 F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?
E 304 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?
E 305 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?
E 306 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?
E 307 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?

1.5	3.7	.0	12.5	6.5	66.2	16.7	63.6
1.5	3.7	.0	12.5	5.7	19.0	4.4	40.9
1.5	2.5	3.4	.0	3.5	66.7	15.8	18.2
1.5	1.9	.0	.0	3.8	19.2	1.8	13.8
.0	1.9	.0	.0	2.5	4.8	.9	36.4
1.5	1.9	3.4	6.3	2.8	28.5	.9	36.4
.0	.0	.0	.0	1.9	.0	.9	4.8

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D	TSK	TITLES	306 (H)	306 51 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	918 50 (M)
F	308	F1-14 DO YOU PERFORM TASKS ON TRANSDUCERS?	.0	1.2	.0	18.8	2.8	4.8	72.7
F	309	F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.	27.3	5.0	6.9	18.8	11.3	81.0	72.7
F	310	F2-2 DO YOU INSPECT SPEAKERS?	25.8	4.3	.0	18.8	10.4	81.0	70.5
F	311	F2-3 DO YOU CLEAN SPEAKERS?	22.7	3.7	.0	12.5	7.5	66.7	40.9
F	312	F2-4 DO YOU OPERATE SPEAKERS?	21.2	4.3	6.9	12.5	9.4	76.2	59.1
F	313	F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?	25.8	4.3	.0	18.8	8.5	76.2	70.5
F	314	F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?	16.7	2.5	.0	.0	1.9	66.7	31.8
F	315	F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?	25.8	4.3	.0	18.8	8.5	81.0	68.2
F	316	F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?	13.6	3.1	.0	.0	1.9	52.4	13.6
F	317	F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?	3.0	1.9	.0	.0	1.9	9.5	15.9
F	318	F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?	.0	1.2	.0	.0	1.9	9.5	9.1
F	319	F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?	.0	1.2	.0	.0	1.9	14.3	15.9
F	320	F2-12 DO YOU PERFORM ANY TASKS ON VOICE COIL SPEAKER PARTS?	.0	1.2	.0	.0	2.8	14.3	15.9
F	321	F2-13 DO YOU PERFORM ANY TASKS ON PERMANENT MAGNET SPEAKER PARTS?	4.5	1.2	.0	.0	1.9	9.5	15.9
F	322	F2-14 DO YOU PERFORM ANY TASKS ON ELECTROMAGNET SPEAKER PARTS?	.0	1.9	.0	.0	1.9	14.3	13.6
F	323	F2-15 DO YOU PERFORM ANY TASKS ON SOFT IRON CORE SPEAKER PARTS?	1.5	1.9	.0	.0	1.9	4.8	9.1
F	324	F3-1 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G1-1; IF YES, CONTINUE.	80.4	78.3	.0	81.3	37.7	71.4	95.5
F	325	F3-2 DO YOU PERFORM OPERATIONAL CHECKS USING OSCILLOSCOPES?	86.4	69.6	.0	81.3	32.1	57.1	93.2
F	326	F3-3 DO YOU PERFORM ALIGNMENTS OR ADJUSTMENTS USING OSCILLOSCOPES?	80.3	65.8	.0	68.8	31.1	52.4	88.6
F	327	F3-4 DO YOU TROUBLESHOOT ELECTRONIC CIRCUITS USING OSCILLOSCOPES?	80.3	76.4	.0	81.3	31.1	61.9	86.4
F	328	F3-5 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCIES?	69.7	48.4	.0	75.0	32.1	61.9	90.9
F	329	F3-6 DO YOU USE OSCILLOSCOPES TO MEASURE TIME?	68.2	39.1	.0	81.3	17.9	42.9	93.2

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D TSK	TITLES	306 (M)	306 51 (M)	306 52 (M)	FCPT01 PAGE	23	316 52F (M)	316 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
F 330	F3-7 DO YOU USE OSCILLOSCOPES TO OBSERVE LISSAJOUS PATTERNS?	59.1	10.6	.0	18.5	6.6	9.5	.0	27.3		
F 331	F3-8 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.	57.6	46.0	.0	31.3	15.1	23.8	.9	84.1		
F 332	F3-9 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS?	42.4	26.7	.0	37.5	15.1	14.3	.0	54.5		
F 333	F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGES?	80.3	71.4	.0	81.3	19.8	61.9	3.5	93.2		
F 334	F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGES?	86.4	77.0	.0	75.0	28.3	61.9	3.5	93.2		
F 335	F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS?	36.4	32.9	.0	43.8	17.0	38.1	4.4	75.0		
F 336	F3-13 DO YOU USE OSCILLOSCOPES TO OBSERVE DATA PATTERNS?	86.4	62.7	.0	62.5	19.8	19.0	1.8	68.2		
F 337	F3-14 DO YOU USE OSCILLOSCOPES TO MEASURE RIPPLE VOLTAGES?	86.4	44.7	.0	81.3	13.2	42.9	.9	79.5		
F 338	F3-15 DO YOU USE OSCILLOSCOPES TO MEASURE PHASE JITTERS?	22.7	12.4	.0	18.8	13.2	14.3	.0	43.2		
F 339	F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?	42.4	31.1	.0	25.0	12.3	9.5	.9	77.3		
F 340	F3-17 DO YOU USE OSCILLOSCOPES TO OBSERVE PHASE RELATIONSHIPS?	69.7	37.3	.0	43.8	15.1	14.3	2.6	88.6		
F 341	F3-18 DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?	37.0	21.7	.0	31.3	12.3	33.3	.9	65.9		

5 SEMICONDUCTOR DIODES (G1), TRANSISTORS (G2), TRANSISTOR AMPLIFIERS (G3)

G 342	G1-1 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1. IF YES, CONTINUE.	81.8	70.2	3.4	75.0	47.2	46.7	11.4	93.2		
G 343	G1-2 DO YOU INSPECT DIODES?	77.3	67.1	.0	75.0	39.6	66.7	9.6	93.2		
G 344	G1-3 DO YOU CHECK DIODES?	77.3	68.9	.0	68.8	43.4	61.9	9.6	90.9		

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G 345 G1-4 DO YOU USE ENERGY LEVEL DIAGRAM IN YOUR WORK WITH DIODES?
G 346 G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?
G 347 G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?
G 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?
G 349 G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?
G 350 G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF COPING ON CURRENT FLOW?
G 351 G1-10 DO YOU MEASURE FORWARD BIAS RESISTANCE?
G 352 G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?
G 353 G1-12 DO YOU READ DIODE COLOR CODING?
G 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN 538?
G 355 G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?
G 356 G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?
G 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?
G 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OR RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?
G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
12.1	8.1	.0	6.3	2.8	4.8	.0	18.2
28.8	13.7	.0	12.5	9.4	19.0	.9	47.7
28.8	14.3	.0	25.0	8.5	9.5	.0	43.2
53.0	39.8	3.4	43.8	24.5	23.8	3.5	72.7
68.2	56.5	.0	43.8	34.0	47.6	8.8	88.6
18.2	9.9	.0	12.5	5.7	14.3	.0	29.5
57.6	46.0	.0	56.3	18.9	23.8	1.8	79.5
56.1	46.0	.0	56.3	17.9	23.8	1.8	79.5
31.8	17.4	.0	37.5	8.5	9.5	.9	18.2
54.5	46.0	.0	62.5	17.0	42.9	2.6	81.8
81.8	63.4	.0	68.8	29.2	52.4	7.0	93.2
81.8	65.2	3.4	50.0	41.5	52.4	9.6	93.2
16.7	6.8	.0	25.0	5.7	19.0	.0	63.6
33.3	18.6	3.4	18.8	13.2	14.3	.0	68.2
22.7	12.4	.0	6.3	9.4	28.6	2.6	54.5

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G 360	GI-19 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?	306 (M)	306 (M)	316 52F (M)	316 51 (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
G 361	GI-20 DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?	51.5	40.4	.0	18.4	18.9	28.6	5.3	81.8
G 362	GI-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?	6.1	11.8	.0	12.5	6.6	4.8	.9	40.9
G 363	GI-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?	3.0	9.9	.0	12.5	5.7	4.8	.9	27.3
G 364	GI-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?	6.1	11.2	.0	12.5	6.6	4.8	.9	45.5
G 365	GI-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?	4.5	10.6	.0	12.5	6.6	4.8	.9	27.3
G 366	GI-25 DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	6.1	10.6	.0	18.2	6.6	4.8	.9	45.5
G 367	GI-26 DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?	21.2	18.0	.0	18.8	9.4	9.5	1.8	56.8
G 368	GI-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	7.6	10.6	.0	12.5	5.7	4.8	.9	31.8
G 369	GI-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	4.5	9.9	.0	18.8	5.7	4.8	.9	21.8
G 370	GI-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	45.5	24.8	.0	31.3	11.3	23.8	3.5	72.7
G 371	GI-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	47.0	24.8	.0	25.0	11.3	23.8	3.5	72.7
G 372	GI-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	16.7	14.3	.0	12.5	5.7	4.8	.9	43.2
G 373	GI-32 DO YOU NEED AN UNDERSTANDING OF RECOMBINATION IN SEMICONDUCTORS?	16.7	14.9	.0	12.5	5.7	4.8	.9	43.2
G 374	GI-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	7.6	11.2	.0	18.8	6.6	4.8	.9	36.6
G 375	GI-34 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	6.1	12.4	.0	12.5	7.5	4.8	.9	50.0

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G 375 G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN
BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?

G 376 G1-35 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT
RESISTANCE RATIO FOR DIODES?

G 377 G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN
SEMICONDUCTORS?

G 378 G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION
INFORMATION?

G 379 G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD
CURRENT DIODE RATINGS?

G 380 G1-39 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT
DIODE RATINGS?

G 381 G1-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE
RATINGS?

G 382 G1-41 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE
DIODE RATINGS?

G 383 G2-1 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM G3-1; IF YES, CONTINUE.

G 384 G2-2 DO YOU INSPECT TRANSISTORS?

G 385 G2-3 DO YOU CHECK TRANSISTORS?

G 386 G2-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB)
FORWARD AND REVERSE RESISTANCE MEASUREMENTS?

G 387 G2-5 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD
AND RESISTANCE MEASUREMENTS?

G 388 G2-6 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)
RESISTANCE MEASUREMENTS?

G 389 G2-7 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?

G 390 G2-8 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
0.1	13.7	.0	12.5	7.5	4.8	.9	47.7
28.8	17.4	.0	18.8	4.7	4.8	1.8	45.5
7.6	6.2	.0	.0	5.7	4.8	.9	20.5
31.8	20.5	.0	25.0	6.6	28.6	.9	81.8
15.2	14.3	.0	12.5	4.7	.0	.0	70.5
9.1	12.4	.0	6.3	4.7	.0	.0	52.3
16.7	11.8	3.4	12.5	4.7	.0	.0	54.5
19.7	15.5	.0	18.8	4.7	4.8	.0	72.7
84.8	80.1	6.9	75.0	30.2	71.4	19.3	95.5
83.3	76.4	3.4	75.0	26.4	71.4	14.0	93.2
83.3	78.9	3.4	62.5	24.5	71.4	16.7	93.2
75.8	65.2	3.4	43.8	23.6	47.6	7.0	90.9
74.2	66.5	3.4	62.5	19.8	47.6	7.9	86.4
74.2	67.1	3.4	62.5	20.8	47.6	7.9	86.4
51.5	32.3	3.4	31.3	11.3	28.6	3.5	70.5
48.5	32.3	3.4	31.3	11.3	23.8	3.5	65.9

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- G 391 G2-9 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?
- G 392 G2-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR?
- G 393 G2-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?
- G 394 G2-12 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS J1, A2, A3, ETC.?
- G 395 G2-13 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION?
- G 396 G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB B) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 8 PERCENT OF I(SUB E)?
- G 397 G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?
- G 398 G2-16 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?
- G 399 G2-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?
- G 400 G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?
- G 401 G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?
- G 402 G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?
- G 403 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO THE BASE COLLECTOR VOLTAGE ($A_V = V_{CB}/V_{BE}$)?
- G 404 G2-22 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT ($A_I = I_C/I_B$)?

306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 (M)
54.5	39.1	3.4	43.8	13.2	47.6	4.4	81.8	
19.7	28.6	.0	18.8	5.7	14.3	2.6	52.3	
86.4	77.0	6.9	81.3	22.6	61.9	13.2	95.5	
84.8	77.0	3.4	75.0	20.8	61.9	11.4	93.2	
59.1	44.7	.0	13.8	11.3	38.1	3.5	95.5	
36.4	34.2	.0	18.8	5.7	19.0	.9	68.2	
50.0	50.3	.0	31.3	8.5	19.0	5.3	85.1	
15.2	20.5	.0	12.5	5.7	14.3	1.8	52.3	
6.1	10.6	.0	19.3	.9	9.5	.9	43.2	
3.0	13.0	.0	4.3	.9	.0	1.8	20.5	
.0	12.4	.0	4.3	.9	.0	1.8	15.9	
.0	11.8	.0	6.3	.9	.0	1.8	13.6	
3.0	6.2	3.4	6.3	1.9	4.8	.0	22.7	
3.0	5.0	3.4	6.3	2.8	4.8	.9	18.2	

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D TASK TITLES

D TASK	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
6 405	G2-23 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE VOLTAGE GAIN ($AP = AI \times AV$)?	4.5	5.6	3.4	6.3	1.9	4.8	.9	22.7
6 406	G2-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF CURVE TRACING?	.0	1.9	.0	12.5	.9	.0	.0	22.7
6 407	G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	48.5	24.8	.0	31.3	16.0	38.1	8.8	84.1
6 408	G3-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?	39.4	22.4	.0	31.3	11.3	47.6	6.1	84.1
6 409	G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?	24.2	13.7	.0	25.0	12.3	42.9	7.0	65.9
6 410	G3-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	45.5	19.9	.0	31.3	9.4	38.1	7.9	84.1
6 411	G3-5 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS?	43.9	21.1	.0	18.8	5.7	28.6	2.6	81.8
6 412	G3-6 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	36.4	18.0	.0	31.3	12.3	47.6	5.3	79.5
6 413	G3-7 DO YOU REMOVE OR REPLACE AMPLIFIER CIRCUIT COMPONENTS?	39.4	20.5	.0	18.8	3.8	23.8	1.8	81.8
6 414	G3-8 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR CURRENT RESULTS FROM A CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	15.2	14.3	.0	12.5	1.9	9.5	.9	52.3
6 415	G3-9 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO SPECIFIC CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	4.5	6.2	.0	6.3	1.9	9.5	.9	31.8
6 416	G3-10 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR VOLTAGE RESULTS FROM A CHANGE IN BASE CURRENT?	18.2	13.7	.0	12.5	1.9	9.5	.9	61.4
6 417	G3-11 DO YOU USE OR REFER TO THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	24.2	14.3	.0	18.8	1.9	14.3	.9	59.1
6 418	G3-12 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	10.6	8.1	.0	6.3	1.9	9.5	.9	36.4
6 419	G3-13 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)?	4.5	2.5	.0	6.3	.9	.0	1.8	18.2

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D TSM	TITLES	FCPT01 PAGE 29								
		306	316	316	362	362	362	362	362	918
G 420	G3-14 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR?	12.1	6.2	.0	6.3	1.9	4.8	1.8	31.8	
G 421	G3-15 DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR AMPLIFIERS?	27.3	14.9	.0	25.0	3.8	19.0	2.6	65.9	
G 422	G3-16 DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR AMPLIFIERS?	19.7	14.9	.0	25.0	4.7	14.3	1.8	50.0	
G 423	G3-17 DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR AMPLIFIERS?	16.7	10.6	.0	18.8	4.7	4.8	1.8	38.6	
G 424	G3-18 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?	10.6	5.0	.0	17.5	3.8	.0	.0	25.0	
G 425	G3-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION?	18.2	10.6	.0	18.8	1.9	9.5	.0	45.5	
G 426	G3-20 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION?	13.6	6.8	.0	18.8	1.9	9.5	.0	40.9	
G 427	G3-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION?	16.7	9.9	.0	12.5	1.9	4.8	.0	38.6	
G 428	G3-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?	24.2	11.8	.0	14.8	1.9	9.5	.9	43.2	
G 429	G3-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?	24.2	12.4	.0	18.8	1.9	4.8	.9	38.6	
G 430	G3-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?	6.1	7.5	.0	12.5	1.9	4.8	.0	38.6	
G 431	G3-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?	17.6	11.2	.0	12.5	1.9	28.6	.0	56.8	

D TSM	TITLES	306	306	306	316	316	316	362	362	362	918
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
G 432	G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?	12.1	11.2	.0	6.3	2.8	23.8	.0	50.0		
G 433	G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?	9.1	6.2	.0	12.5	2.8	9.5	.0	47.7		
G 434	G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?	4.5	7.5	.0	6.3	.9	.0	.0	43.2		
G 435	G3-29 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	18.2	6.2	.0	6.3	3.8	14.3	.9	34.1		
G 436	G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	1.5	3.7	.0	6.3	1.9	.0	.9	40.9		
G 437	G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	19.7	10.6	.0	18.8	3.8	19.0	.0	72.7		
G 438	G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?	3.0	4.3	.0	6.3	1.9	4.8	.0	31.8		
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	7.6	1.9	.0	12.5	1.9	.0	.0	40.9		
G 440	G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	10.6	3.7	.0	12.5	1.9	.0	.0	56.8		
G 441	G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (DOUBLERS/TRIPLERS)?	16.7	9.3	.0	25.0	1.9	.0	.9	72.7		
G 442	G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?	24.2	6.8	.0	12.5	2.8	4.8	.0	70.5		
G 443	G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?	3.0	3.1	.0	.0	1.9	.0	.0	40.9		
G 444	G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?	15.2	5.0	.0	18.8	6.6	38.1	1.8	61.4		
G 445	G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?	22.7	13.7	.0	18.8	2.8	23.8	.9	79.5		
G 446	G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	1.5	3.7	.0	.0	1.9	.0	.0	36.4		
G 447	G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?	3.0	4.3	.0	.0	1.9	4.8	.0	29.5		
G 448	G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?	4.5	5.6	.0	12.5	2.8	.0	.0	34.1		
G 449	G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?	24.2	3.7	.0	12.5	1.9	.0	.0	79.5		

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O TSK TITLES

G 450 G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)? 306 306 316 316 362 362 362 918
51 52 53 54 50 (M) (M) (M) (M) (M)

G 451 G3-44 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS? 16.7 6.8 .0 18.8 1.9 .0 .0 79.5
G 452 G3-44 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS? 1.5 1.9 .0 .0 .9 .0 .0 45.5

H SOLID-STATE SPECIAL PURPOSE DEVICES (H1), POWER SUPPLIES (H2), OSCILLATORS (H3)

H 453 H1-1 DO YOU USE OR REFER TO VARACTORS/VARICAP COMPONENTS? 7.6 9.3 .0 18.8 3.8 .0 .9 38.6
H 454 H1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS? 34.8 14.9 .0 12.5 2.8 .0 .0 61.4
H 455 H1-3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTOR COMPONENTS? 27.3 18.0 .0 25.0 2.8 9.5 .0 95.5

H 456 H1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS? 62.1 25.5 .0 31.3 4.7 4.8 .9 93.2

H 457 H1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS? 86.4 75.8 24.1 81.3 17.0 61.9 25.4 93.2
H 458 H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS? 87.9 62.7 13.8 81.3 19.8 19.0 22.8 93.2
H 459 H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS? 9.1 13.7 .0 6.3 5.7 4.8 3.5 34.1
H 460 H1-8 DO YOU USE OR REFER TO LED'S/LCD'S COMPONENTS? 77.3 46.6 20.7 68.8 18.9 19.0 22.8 95.5
H 461 H1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS? 7.6 7.5 .0 .0 2.8 .0 .0 20.6
H 462 H1-10 DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS? 78.8 22.4 6.9 68.8 4.7 14.3 2.5 95.5

H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS? 24.2 24.2 .0 16.8 2.8 .0 .0 93.2
H 464 H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS? 7.6 1.9 .0 6.3 1.9 .0 .0 86.4

H 465 H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS? 10.6 3.7 .0 6.3 1.9 .0 .0 75.0

H 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS? 6.1 1.9 .0 .0 1.9 .0 .0 77.3

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D TSK	TITLES	306	306	306	316	316	362	362	362	362	918
		51	52	50F	52F	51	53	54	(M)	(M)	(M)
H 467	H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES?	89.4	79.5	86.2	81.3	45.3	81.0	86.8	93.2		
	IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.										
H 468	H2-2 DO YOU INSPECT POWER SUPPLIES?	84.8	79.5	69.0	75.0	44.3	81.0	82.5	90.9		
H 469	H2-3 DO YOU CLEAN POWER SUPPLIES?	86.4	75.8	6.9	81.3	43.4	76.2	72.8	77.3		
H 470	H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?	86.4	67.7	62.1	75.0	35.8	76.2	19.3	90.9		
H 471	H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?	86.4	75.2	55.2	62.5	35.8	81.0	57.9	90.9		
H 472	H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?	86.4	68.3	69.0	75.0	29.2	81.0	38.6	93.2		
H 473	H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?	72.7	75.8	.0	62.5	28.3	71.4	83.3	90.9		
H 474	H2-8 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?	86.4	68.3	3.4	75.0	25.5	76.2	30.7	93.2		
H 475	H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?	6.1	4.3	6.9	12.5	9.4	19.0	3.5	40.9		
H 476	H2-10 DO YOU WORK WITH HALF-WAVE RECTIFIERS?	72.7	50.9	3.4	56.3	20.8	19.0	7.0	93.2		
H 477	H2-11 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?	71.2	57.1	3.4	62.5	26.4	33.3	4.4	88.6		
H 478	H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?	81.8	57.8	10.3	75.0	18.9	47.6	12.3	93.2		
H 479	H2-13 DO YOU WORK WITH THREE-PHASE RECTIFIERS?	30.3	18.0	3.4	50.0	18.9	9.5	2.6	68.2		
H 480	H2-14 DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	81.8	68.3	37.9	81.3	34.0	66.7	27.2	93.2		
H 481	H2-15 DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	43.9	29.8	24.1	25.0	13.2	33.3	10.5	72.7		
H 482	H2-16 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	65.2	50.3	13.8	43.8	25.5	38.1	18.4	81.8		
H 483	H2-17 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	66.7	52.2	17.2	50.0	30.2	23.8	26.3	70.5		
H 484	H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?	72.7	28.0	.0	56.3	9.4	19.0	2.6	68.2		
H 485	H2-19 DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	50.0	21.7	.0	25.0	6.6	4.8	1.8	61.4		
H 486	H2-20 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGES IN YOUR WORK WITH RECTIFIERS?	25.8	18.6	.0	18.8	8.5	4.8	2.6	70.5		
H 487	H2-21 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN YOUR WORK WITH RECTIFIERS?	53.0	44.7	.0	31.3	5.7	33.3	3.5	84.1		

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O TSK	TITLE	306 (M)	306 (M)	316 50F (M)	316 (M)	362 51 (M)	362 53 (M)	918 50 (M)
H 483	H2-22 DO YOU USE OR PREFER TO EFFECTIVE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	56.1	42.9	13.8	50.0	21.7	33.3	13.2
H 489	H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS?	80.7	51.6	13.8	50.0	14.7	42.9	13.2
H 490	H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS?	43.0	32.9	6.9	25.0	13.2	14.3	12.3
H 491	H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS?	30.4	21.1	.0	12.5	3.6	9.5	2.6
H 492	H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS?	27.3	16.1	.0	6.3	4.7	4.8	1.8
H 493	H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS?	22.7	11.2	.0	12.5	2.8	4.8	1.0
H 494	H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS?	31.2	11.8	.0	12.5	3.8	9.5	2.0
H 495	H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER?	9.1	5.0	.0	12.5	2.7	.0	2.3
H 496	H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS OTHER THAN SOLID-STATE?	25.8	24.2	.0	25.0	13.2	33.3	2.0
H 497	H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?	64.0	56.5	6.9	11.7	13.7	16.0	9.7
H 498	H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF SO, GO TO ITEM 11-1; IF YES, CONTINUE.	54.1	17.4	6.9	15.0	10.7	71.9	6.3
H 500	H3-2 DO YOU INSPECT OSCILLATORS?	45.5	15.8	3.4	6.3	17.4	86.2	3.4
H 501	H3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?	42.4	12.4	.0	12.5	10.9	57.1	2.0
H 502	H3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?	47.4	13.0	.0	12.5	10.3	63.3	6.0
H 503	H3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?	25.8	12.4	.0	12.5	1.6	14.3	2.4
H 504	H3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?	40.9	14.9	.3	18.0	13.2	57.1	7.0
H 505	H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?	24.8	14.3	.0	.0	7.5	9.5	2.3
H 506	H3-8 DO YOU USE OR PREFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?	27.3	8.1	3.4	6.3	1.3	11.0	1.9

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O TSK TITLES

H 506	H3-9	DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?	27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
H 507	H3-10	DO YOU USE OR REFER TO AMPLITUDE STABILITY?	15.2	8.1	.0	.0	7.5	19.0	.0	50.0
H 508	H3-11	DO YOU USE OR REFER TO FREQUENCY STABILITY?	21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
H 509	H3-12	DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL OSCILLATORS)?	16.7	8.7	3.4	.0	1.9	.0	.0	59.1
H 510	H3-13	DO YOU USE OR REFER TO HARMONIC DISTORTION?	10.6	8.7	.0	.0	4.7	4.8	.0	45.5
H 511	H3-14	DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?	21.2	8.7	.0	12.5	3.8	9.5	.0	59.1
H 512	H3-15	DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?	33.3	11.8	.0	12.5	3.8	19.0	.0	65.9
H 513	H3-16	DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?	40.9	10.6	3.4	6.3	3.8	.0	.0	65.9
H 514	H3-17	DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOPS (PLL)?	10.6	4.3	.0	.0	4.7	.0	.0	34.1
H 515	H3-18	DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	12.1	5.0	3.4	6.3	11.3	33.3	.9	22.7
H 516	H3-19	DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS?	10.6	3.7	.0	.0	.9	.0	.0	45.5
H 517	H3-20	DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS?	18.2	4.3	.0	6.3	.9	.0	.0	50.0
H 518	H3-21	DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?	4.5	2.5	.0	.0	.9	.0	.9	22.7
H 519	H3-22	DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?	6.1	2.5	.0	.0	.9	.0	.9	20.5
H 520	H3-23	DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATORS?	16.7	3.1	.0	12.5	.9	9.5	.0	40.9
H 521	H3-24	DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?	34.8	8.1	.0	6.3	1.9	.0	.0	59.1
H 522	H3-25	DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO) SINUSOIDAL OSCILLATORS?	13.6	4.3	.0	12.5	.9	.0	.0	40.9
H 523	H3-26	DO YOU WORK WITH WIEN BRIDGE OSCILLATORS SINUSOIDAL OSCILLATORS?	9.1	5.0	.0	6.3	.0	.0	.0	50.0
H 524	H3-27	DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF SINUSOIDAL OSCILLATOR?	16.7	8.7	3.4	6.3	14.2	28.6	.9	29.5
H 525	H3-28	DO YOU WORK WITH PULSE GENERATING CIRCUITS?	31.8	15.5	3.4	6.3	10.4	4.8	.0	65.9

Q 104 11-10 DO YOU WORK WITH BLOCKING OSCILLATORS?

A 206 11-10 DO YOU WORK WITH BLOCKING OSCILLATORS?

Q 105 11-10 DO YOU WORK WITH TUNING OSCILLATORS?

A 207 11-10 DO YOU WORK WITH TUNING OSCILLATORS?

Q 106 11-10 DO YOU WORK WITH BLOCKED OSCILLATORS?

A 208 11-10 DO YOU WORK WITH BLOCKED OSCILLATORS?

I MULTIVIBRATORS (11), LIMITERS AND CLAMPERS (12), ELECTRON
TUBE'S (13)

I 529 11-10 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB?

IF NO, GO TO ITEM 12-1; IF YES, CONTINUE.

I 530 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK

CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?

I 531 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC

NETWORK FREQUENCY DETERMINING DEVICES (FDD)?

I 532 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL

FREQUENCY DETERMINING DEVICES (FDD)?

I 533 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN - DON'T

KNOW WHICH TYPE OF FDD?

I 534 11-10 DO YOU WORK WITH STABLE (FLE RUNNING)

MULTIVIBRATORS?

I 535 11-10 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?

I 536 11-10 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?

I 537 11-10 DO YOU WORK WITH S-S FLIP-FLOP INTEGRATED CIRCUIT

REGULATORS?

I 538 11-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT

REGULATORS?

I 539 11-10 DO YOU WORK WITH "U" FLIP-FLOP INTEGRATED CIRCUIT

REGULATORS?

I 540 12-10 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT

JOB? IF NO, GO TO ITEM 13-1; IF YES, CONTINUE.

306	306	316	316	362	362	362	918
51	52	52F	52F	51	53	54	50
(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)

2.0	3.7	.0	6.3	1.9	.0	.0	43.2
3.0	2.5	.0	6.3	1.9	.0	.0	34.1
1.9	1.9	.0	6.3	.9	.0	.0	20.7

65.2	24.2	.0	6.3	1.9	9.5	.9	85.1
21.2	12.4	.0	.0	.0	4.8	.0	85.1
43.9	18.0	.0	6.3	.9	9.5	.9	68.2

36.4	13.0	.0	.0	.0	.0	.0	40.3
15.2	6.8	.0	.0	1.9	.0	.0	23.1
60.6	21.1	.0	6.3	1.9	4.8	.9	81.3

63.0	23.8	.0	6.3	.9	4.8	.0	79.8
68.2	24.8	.0	6.3	.9	4.8	.0	79.8
16.7	9.3	.0	6.3	.9	4.8	.0	79.8

65.2	21.1	.0	6.3	1.9	4.8	.0	71.3
19.7	8.2	.0	6.3	.9	4.8	.0	63.2
21.2	16.1	3.0	6.3	1.9	4.8	.9	70.7

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O TSK TITLES

I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?
I 542 I2-3 DO YOU WORK WITH SHUNT DIODE LIMITERS?
I 543 I2-4 DO YOU WORK WITH LIMITERS WITH PIAS?
I 544 I2-5 DO YOU WORK WITH ZENER DIODE LIMITERS?
I 545 I2-6 DO YOU WORK WITH TRANSISTOR LIMITERS?
I 546 I2-7 DO YOU WORK WITH TRIODE LIMITERS?
I 547 I2-8 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS?
I 548 I2-9 DO YOU WORK WITH PIAS DIODE CLAMPING CIRCUITS?
I 549 I2-10 DO YOU WORK WITH DC RESTORERS?
I 550 I3-1 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH
CONTAINS BASIC ELECTRON TUBES (FOR PURPOSES OF THIS
QUESTION DO NOT CONSIDER HIGH-FREQUENCY DEVICES SUCH AS
KLYSTRONS, TRAVELING WAVE TUBES, BACKWARD WAVE
OSCILLATORS, OR MAGNETRONS AS ELECTRON TUBES)? IF NO, GO
TO ITEM J1-1; IF YES, CONTINUE.
I 551 I3-2 DO YOU CHECK THE CONDITION OF ELECTRON TUBES?
I 552 I3-3 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES?
I 553 I3-4 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES?
I 554 I3-5 DO YOU USE SCOPES TO CHECK ELECTRON TUBES?
I 555 I3-6 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES?
I 556 I3-7 DO YOU USE OR REFER TO CUTOFF?
I 557 I3-8 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING?
I 558 I3-9 DO YOU USE OR REFER TO PEAK CURRENT RATING?
I 559 I3-10 DO YOU USE OR REFER TO TRANSIT TIME?
I 560 I3-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING?
I 561 I3-12 DO YOU USE OR REFER TO SATURATION?
I 562 I3-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE?
I 563 I3-14 DO YOU USE OR REFER TO PLATE VOLTAGE?
I 564 I3-15 DO YOU USE OR REFER TO PLATE CURRENT?
I 565 I3-16 DO YOU USE OR REFER TO GRID VOLTAGE?
I 566 I3-17 DO YOU USE OR REFER TO GRID CURRENT?

706	306	316	362	362	918
51	52	50F	51	53	50
(M)	(M)	(M)	(M)	(M)	(M)
9.1	11.2	.0	.9	.0	68.2
9.1	12.4	3.4	.9	.0	68.2
7.6	10.6	.0	.9	.0	54.5
16.7	14.9	3.4	1.9	4.8	75.0
15.2	11.8	3.4	.9	4.8	65.9
3.0	3.1	.0	.9	.0	34.1
19.7	8.7	.0	.0	.0	61.4
13.6	6.2	.0	.9	.0	56.8
4.5	4.3	.0	1.9	.0	31.8
3.0	11.2	.0	56.3	4.8	52.3
1.5	11.2	.0	62.5	.0	.9
1.5	3.1	.0	43.8	.0	.0
4.5	5.0	.0	62.5	4.8	.9
4.5	6.2	.0	25.0	4.8	.0
6.1	10.6	.0	43.8	.0	1.8
.0	6.2	.0	18.8	.0	1.8
1.5	2.5	.0	18.8	.0	1.8
1.5	3.7	.0	18.8	4.8	1.8
.0	1.9	.0	18.8	.0	1.8
.0	1.9	.0	6.3	.0	1.8
1.5	5.0	.0	18.8	.0	.9
.0	2.5	.0	6.3	.0	.9
.0	5.0	.0	50.0	.0	.9
.0	4.3	.0	18.8	.0	.9
.0	5.6	.0	56.3	.0	1.8
.0	5.0	.0	25.0	.0	.9

0 TASK TITLES

320 (M)	306 (M)	316 50F (M)	316 50F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0.0	5.6	0.0	62.3	4.7	0.0	0.0	47.7
0.0	5.0	0.0	25.9	3.9	0.0	0.0	40.9
0.0	5.0	0.0	56.7	2.8	0.0	0.0	50.0
0.0	1.2	0.0	6.3	0.9	0.0	0.0	20.5
0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	1.2	0.0	0.0	1.9	0.0	1.2	25.0
0.0	0.6	0.0	0.0	0.9	0.0	1.0	13.4
0.0	1.2	0.0	0.0	0.0	0.0	1.0	11.0
0.0	1.0	0.0	0.0	0.0	0.0	1.0	15.0
0.0	1.2	0.0	6.7	0.0	0.0	1.0	20.0
0.0	4.0	0.0	77.3	1.0	0.0	0.0	16.9
0.0	3.0	0.0	10.0	0.0	0.0	0.0	20.0
1.0	5.0	0.0	10.0	0.0	0.0	0.0	0.0
1.0	5.0	0.0	10.0	0.0	0.0	0.0	0.0
0.0	3.0	0.0	4.0	0.0	0.0	0.0	0.0
0.0	2.5	0.0	0.0	0.0	0.0	0.0	19.0
1.5	0.3	0.0	41.0	0.0	0.0	0.0	32.0
1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	1.2	0.0	12.0	0.9	0.0	0.0	15.0

I 567 13-13 DO YOU USE OR REFER TO CATHODE VOLTAGE?
I 568 13-14 DO YOU USE OR REFER TO CATHODE CURRENT?
I 569 13-20 DO YOU USE OR REFER TO FILAMENT VOLTAGE?
I 570 13-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?
I 571 13-22 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?
I 572 13-23 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE OR, WHICH IS MEASURED IN MHOS?
I 573 13-24 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?
I 574 13-25 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?
I 575 13-26 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?
I 576 13-27 DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?
I 577 13-28 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?
I 578 13-29 DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?
I 579 13-30 DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?
I 580 13-31 DO YOU USE OR REFER TO GAIN?
I 581 13-32 DO YOU USE OR REFER TO EFFICIENCY?
I 582 13-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?
I 583 13-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?
I 584 13-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?

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D TASK TITLES

I 585 I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?
I 586 I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?
I 587 I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL
SUCH AS MANUALS OR CHARTS?

I 588 I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?

J ELECTRON TUBE AMPLIFIERS AND CIRCUITS (J1), SPECIAL PURPOSE
ELECTRON TUBES (J2), HETERODYNING AND MODULATION -
DEMULATION (MODEMS) (J3)

J 589 J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS
IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES,
CONTINUE.

J 590 J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON
TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER
CIRCUITS?

J 591 J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?

J 592 J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?

J 593 J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED
AMPLIFIERS?

J 594 J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED
AMPLIFIERS?

J 595 J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE
OF AMPLIFIER?

J 596 J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD
CATHODE)?

J 597 J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?

J 598 J2-3 DO YOU WORK WITH REAM POWER TUBES?

J 599 J2-4 DO YOU WORK WITH THYRATRONS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
1.5	5.6	.0	50.0	2.8	.0	.0	43.2
3.0	8.1	.0	56.3	6.6	.0	.0	47.7
.0	3.1	.0	18.8	3.8	.0	.0	45.5
1.5	1.9	.0	12.5	2.8	.0	.0	36.4
1.5	3.1	.0	6.3	3.8	.0	.9	31.8
.0	1.2	.0	.0	.9	.0	.0	15.9
.0	.6	.0	.0	.9	.0	.0	18.2
.0	1.2	.0	.0	.9	.0	.0	27.3
.0	.6	.0	.0	.9	.0	.0	20.5
.0	.6	.0	.0	.9	.0	.9	20.5
.0	1.2	.0	6.3	2.8	.0	.0	6.8
1.5	2.5	.0	25.0	3.8	.0	.9	43.2
10.6	26.1	6.9	18.8	6.6	4.8	2.6	79.5
1.5	1.2	.0	.0	1.9	.0	.0	38.6
1.5	1.9	.0	6.3	.0	.0	.0	31.8

ANALYSIS OF ELECTRONIC PRINCIPLES INVENTORY DATA

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ITEM	TITLE	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	51 (M)	54 (M)	54 (M)	918 (M)
U 600	J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?	4.5	13.7	.0	6.3	2.8	4.8	.9	50.0			
U 601	J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	6.1	10.6	.0	18.9	1.9	.0	.9	52.3			
U 602	J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	4.5	9.3	.0	6.3	1.0	.0	.9	38.6			
U 603	J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?	6.1	13.7	3.4	6.3	1.4	4.8	.0	72.7			
U 604	J2-9 DO YOU USE OR REFER TO AQUADAG COATINGS CONCERNING CRT'S?	1.5	1.9	.0	.0	.9	.0	.0	29.5			
U 605	J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?	1.5	3.1	.0	6.3	1.4	.0	.0	38.6			
U 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?	1.5	1.9	.0	.0	2.8	.0	.0	25.0			
U 607	J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?	.0	3.1	.0	.0	1.4	.0	.0	16.4			
U 608	J2-13 DO YOU USE OR REFER TO FLOURESCENCE CONCERNING CRT'S?	1.5	5.0	3.4	6.3	1.9	.0	.0	56.5			
U 609	J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?	3.0	5.6	.0	.0	1.9	.0	.0	54.9			
U 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?	1.5	3.1	.0	.0	1.9	.0	.0	25.0			
U 611	J3-1 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.	72.7	36.0	10.3	.0	26.4	23.6	27.2	18.0			
U 612	J3-2 DO YOU WORK ON TASKS ON FREQUENCY CONVERTER SYSTEMS STAGES?	16.7	9.3	1.4	.0	1.5	.0	.0	13.0			
U 613	J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?	13.6	3.1	3.4	.0	1.8	.0	.9	13.6			
U 614	J3-4 DO YOU PERFORM TASKS ON MOUTH SYSTEMS STAGES?	68.2	14.3	3.4	.0	11.1	.0	11.4	11.4			
U 615	J3-5 DO YOU USE OR REFER TO THE REPEATING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?	4.1	.0	.0	.0	.0	.0	.0	11.4			
U 616	J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?	4.5	.0	3.4	.0	.0	.0	.0	11.4			

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D TSM TITLES

306	306	316	316	362	362	918
51	52	50F	52F	51	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)

J 617 J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?

13.6

K AM SYSTEMS (K1), FM SYSTEMS (K2), NUMBERING SYSTEMS (K3)

K 618 K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.

K 619 K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?

K 620 K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?

K 621 K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?

K 622 K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS?

K 623 K1-6 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS?

K 624 K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?

K 625 K1-8 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?

K 626 K1-9 DO YOU PERFORM TASKS ON RF OSCILLATORS/SYNTHESIZERS?

K 627 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS?

K 628 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?

K 629 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?

K 630 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?

K 631 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?

K 632 K1-15 DO YOU PERFORM TASKS ON DETECTORS?

K 633 K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?

K 634 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?

K 635 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSK TITLES

D TSK	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 (M)	362 (M)	362 (M)	362 (M)	51 (M)	53 (M)	54 (M)	918 50 (M)
K 636	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?	.0	1.2	.0	.0	.9	.0	.0	.0	.0	.0	.0	6.8
K 637	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?	1.5	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8
K 638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	7.6	1.2	3.4	.0	3.8	.0	1.8	.0	1.8	.0	6.8	
K 639	K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	3.4	.0	.9	.0	.9	.0	.9	.0	9.1	
K 640	K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	.0	.0	.9	.0	.9	.0	.9	.0	6.8	
K 641	K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	.0	.0	.9	.0	.9	.0	.9	.0	9.1	
K 642	K2-5 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	3.4	.0	.9	.0	1.8	.0	1.8	.0	9.1	
K 643	K2-6 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?	1.5	.6	3.4	.0	.9	.0	.0	.0	.0	.0	6.8	
K 644	K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	.0	.0	.9	.0	.9	.0	.9	.0	9.1	
K 645	K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?	3.0	.6	.0	.0	.9	.0	.0	.0	.0	.0	6.8	
K 646	K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?	3.0	.6	.0	.0	.9	.0	.0	.0	.0	.0	2.3	
K 647	K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	4.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	11.4	
K 648	K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?	4.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	9.1	
K 649	K2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)?	1.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	6.8	
K 650	K2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	4.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	6.8	
K 651	K2-14 DO YOU PERFORM TASKS ON RF AMPLIFIERS?	1.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	9.1	
K 652	K2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?	1.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	6.8	
K 653	K2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	1.5	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	6.8	
K 654	K2-17 DO YOU PERFORM TASKS ON LIMITERS?	1.5	.6	.0	.0	.9	.0	.0	.0	.9	.0	9.1	
K 655	K2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?	1.5	.6	.0	.0	.9	.0	.0	.0	.9	.0	6.8	
K 656	K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?	3.0	.6	.0	.0	.9	.0	.0	.0	.9	.0	9.1	
K 657	K2-20 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?	3.0	.6	.0	.0	1.9	.0	.0	.0	1.9	.0	9.1	

D TSK	TITLES	106 (M)	306 (M)	316 (M)	326 (M)	362 (M)	362 (M)	51 (M)	54 (M)	50 (M)	918
K 658	K2-21 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSCIEVERS?	1.5	.6	.0	.0	.9	.0	.0	.0	.0	9.1
K 659	K2-22 DO YOU PLOT RECEIPE SIGNAL LEVEL CURVES (RSL)?	1.5	.6	.0	.0	.9	.0	.0	.0	.0	2.3
K 660	K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?	31.8	6.8	44.8	50.0	4.7	.0	.9	.9	.9	40.9
K 661	K3-2 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?	48.5	13.7	13.8	62.5	6.6	9.5	2.6	2.6	2.6	61.4
K 662	K3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?	18.2	5.6	3.4	50.0	5.7	.0	.9	.9	.9	36.4
K 663	K3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?	33.3	6.2	51.7	50.0	2.8	4.8	.9	.9	.9	40.9
K 664	K3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?	30.3	6.2	10.3	43.8	2.8	.0	.9	.9	.9	43.2
K 665	K3-6 DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?	12.1	5.0	.0	50.0	1.9	.0	.0	.0	.0	36.4
K 666	K3-7 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?	53.0	13.7	6.9	56.3	7.5	4.8	1.8	1.8	1.8	59.1
K 667	K3-8 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?	33.3	6.8	20.7	37.5	3.8	.0	.0	.0	.0	40.9
K 668	K3-9 DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?	13.6	5.6	.0	62.5	4.7	.0	.0	.0	.0	38.6
K 669	K3-10 DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?	15.2	5.6	3.4	62.5	3.8	.0	.0	.0	.0	38.6
K 670	K3-11 DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?	12.1	5.0	3.4	50.0	1.9	.0	.0	.0	.0	36.4
K 671	K3-12 DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?	12.1	5.6	.0	62.5	5.7	.0	.0	.0	.0	38.6
K 672	K3-13 DO YOU ADD BINARY NUMBERS?	43.9	17.4	10.3	50.0	6.6	9.5	4.4	4.4	4.4	61.4
K 673	K3-14 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD?	27.3	11.8	.0	25.0	2.8	.0	1.8	1.8	1.8	45.5
K 674	K3-15 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD?	37.9	13.0	.0	43.8	3.8	4.8	4.4	4.4	4.4	50.0
K 675	K3-16 DO YOU ADD OCTAL NUMBERS?	22.7	6.8	24.1	31.3	1.9	.0	1.8	1.8	1.8	36.4
K 676	K3-17 DO YOU SUBTRACT OCTAL NUMBERS?	21.2	6.8	17.2	31.3	1.9	.0	1.8	1.8	1.8	36.4
K 677	K3-18 DO YOU ADD HEXADECIMAL NUMBERS?	12.1	5.6	.0	56.3	1.9	.0	1.8	1.8	1.8	36.4
K 678	K3-19 DO YOU SUBTRACT HEXADECIMAL NUMBERS?	10.6	5.6	.0	56.3	1.9	.0	.9	.9	.9	36.4
K 679	K3-20 DO YOU DIVIDE BINARY NUMBERS?	27.3	8.7	.0	25.0	2.8	4.8	4.4	4.4	4.4	36.4
K 680	K3-21 DO YOU MULTIPLY BINARY NUMBERS?	27.3	8.1	.0	31.3	2.8	4.8	4.4	4.4	4.4	36.4
K 681	K3-22 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	27.3	8.1	6.9	43.8	4.7	4.8	4.4	4.4	4.4	40.9

D TSK	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
K 682 K3-23	DO YOU USE OR REFER TO GRAY CODE?	3.0	1.9	.0	6.3	1.9	.0	1.8	22.7
K 683 K3-24	DO YOU USE OR REFER TO ICAO CODE?	1.5	.6	.0	6.3	.0	.0	2.6	9.1
K 684 K3-25	DO YOU USE OR REFER TO EXCESS-3 CODE?	1.5	1.2	.0	.0	.9	.0	1.8	13.6

L LOGIC FUNCTIONS (L1), BOOLEAN EQUATIONS (L2), COUNTERS (L3)

L 685 L1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.

L 686 L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?

L 687 L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?

L 688 L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?

L 689 L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS OR GATES?

L 690 L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?

L 691 L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?

L 692 L1-8 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?

L 693 L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?

L 694 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?

L 695 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?

L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?

66.4	34.8	37.9	47.8	2.8	14.3	1.8	77.3
51.5	19.9	6.9	12.5	1.9	4.8	.0	75.0
50.0	19.3	6.9	12.5	1.9	4.8	.0	75.0
51.5	18.0	6.9	12.5	1.9	4.8	.0	72.7
51.5	17.4	6.9	12.5	.9	.0	.0	75.0
71.2	32.3	13.8	25.0	1.9	14.3	.0	75.0
71.2	32.3	13.8	25.0	1.9	14.3	.0	75.0
50.7	30.4	13.8	25.0	1.9	14.3	.0	75.5
60.7	29.8	6.9	31.3	1.9	4.8	.0	75.0
83.3	35.4	37.9	47.8	1.9	14.3	.0	77.7
83.3	35.4	37.9	37.5	1.9	14.3	1.8	77.7
83.3	35.4	34.5	37.5	1.9	14.3	.9	77.3

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O TSM TITLES

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306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
L 697 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR *EXCLUSIVE OR* GATES?	81.8	32.3	20.7	31.3	1.9	14.3	.0 77.3
L 698 L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED *AND* GATES?	78.8	34.2	24.1	31.3	.9	14.3	.0 75.0
L 699 L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "B" BARS?	60.6	4.3	.0	.0	1.9	.0	.0 13.6
L 700 L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "M" BARS?	60.6	3.1	.0	.0	.9	.0	.0 13.6
L 701 L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?	68.2	8.7	.0	6.3	.9	.0	.0 25.0
L 702 L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS?	75.8	29.8	3.4	31.3	.9	19.0	.0 72.7
L 703 L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR SYMBOLS?	71.2	22.4	3.4	18.8	.9	9.5	.0 70.5
L 704 L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS?	81.8	31.7	13.8	18.8	1.9	19.0	.9 72.7
L 705 L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS?	71.2	21.7	10.3	18.8	.9	9.5	.0 70.5
L 706 L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES?	63.6	29.8	.0	18.8	1.9	14.3	.0 61.4
L 707 L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	45.5	17.4	.0	12.5	.0	.0	.0 45.5
L 708 L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS?	48.5	17.4	.0	12.5	.9	.0	.0 45.5
L 709 L1-25 DO YOU USE OR REFER TO NONCOMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	39.4	14.3	3.4	6.3	.9	.0	.0 43.2
L 710 L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR "B" BARS?	25.8	1.2	.0	6.3	.9	.0	.0 9.1
L 711 L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR "M" BARS?	27.3	1.2	.0	6.3	.9	.0	.0 9.1
L 712 L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	33.3	4.3	.0	6.3	.9	.0	.0 11.4
L 713 L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	57.6	19.9	.0	25.0	.9	4.8	.9 61.4
L 714 L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS?	54.5	19.9	.0	12.5	.9	.0	.9 47.7
L 715 L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	53.0	18.6	.0	12.5	.9	4.8	.9 45.5

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O TSK	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
L 716	L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	48.5	16.1	.0	12.5	.9	.0	.0	45.5
L 717	L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS?	47.0	16.1	.0	6.3	.9	.0	.0	45.5
L 718	L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.	47.0	16.1	6.9	18.8	2.8	.0	1.8	40.9
L 719	L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS?	7.6	5.0	.0	.0	.9	.0	.0	29.5
L 720	L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	7.6	5.0	.0	6.3	.9	.0	.0	15.9
L 721	L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS?	16.7	5.6	.0	.0	.9	.0	.0	27.3
L 722	L2-5 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES?	37.0	14.3	.0	18.6	1.9	.0	.0	45.5
L 723	L2-6 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS?	12.1	6.2	.0	.0	1.9	.0	.0	25.0
L 724	L2-7 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA?	15.2	5.6	.0	.0	2.8	.0	.0	27.3
L 725	L2-8 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES?	15.2	8.1	3.4	6.3	1.9	.0	.0	31.8
L 726	L2-9 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	7.6	5.6	.0	12.5	.9	.0	.0	20.5
L 727	L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE?	36.4	16.0	6.9	18.8	.9	.0	.0	45.5
L 728	L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS?	15.2	5.6	.0	.0	.9	.0	.0	22.7
L 729	L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS?	22.7	8.7	.0	.0	.9	.0	.0	29.5
L 730	L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	72.7	22.4	.0	25.0	4.7	9.5	.0	59.1
L 731	L3-2 DO YOU USE OR REFER TO UP-COUNTERS?	63.6	20.5	.0	25.0	4.7	14.3	.0	52.3

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C TSW TITLES

306	306	306	316	316	362	362	362	362	51	51	51	53	53	54	54	50	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
59.1	17.4	.0	18.8	1.9	9.5	.0	50.0										
63.6	20.5	.0	6.3	1.9	9.5	.0	40.9										
54.5	16.1	.0	6.3	.0	9.5	.0	38.6										
34.8	10.6	3.4	6.3	1.9	.0	.0	31.8										
21.2	8.7	.0	12.5	1.9	.0	.0	40.9										
42.4	13.7	3.4	17.5	.0	9.5	.0	45.5										
50.0	16.8	3.4	6.3	1.9	9.5	.0	52.3										
50.0	16.1	3.4	6.3	1.9	9.5	.0	54.5										
27.3	5.6	.0	6.3	.0	.0	.0	39.1										
53.0	16.8	.0	17.5	.0	.0	.0	47.7										
50.0	14.9	.0	12.5	.0	.0	.0	45.5										
39.4	12.4	.0	12.5	.0	.0	.0	43.7										
27.3	8.1	.0	6.3	.0	.0	.0	38.6										
30.3	9.3	.0	6.3	.0	.0	.0	29.5										
43.9	14.3	6.9	6.3	1.9	.0	.0	36.4										
60.6	14.9	3.4	6.3	1.9	.0	.0	39.6										
37.9	6.2	.0	.0	1.9	4.8	.0	27.3										
16.7	4.3	.0	6.3	.0	.0	.0	31.6										
34.8	11.2	.0	6.3	.0	.0	.0	31.6										
51.5	13.7	.0	6.3	1.9	.0	.0	40.9										

L 732 L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS?
 L 733 L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS?
 L 734 L3-5 DO YOU USE OR REFER TO PARALLEL COUNTERS?
 L 735 L3-6 DO YOU USE OR REFER TO RING COUNTERS?
 L 736 L3-7 DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?
 L 737 L3-8 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?
 L 738 L3-9 DO YOU USE OR REFER TO DOWN CLOCKS?
 L 739 L3-10 DO YOU USE OR REFER TO UP CLOCKS?
 L 740 L3-11 DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?
 L 741 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS?
 L 742 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS?
 L 743 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS?
 L 744 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS?
 L 745 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS?
 L 746 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS?
 L 747 L3-18 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS?
 L 748 L3-19 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?
 L 749 L3-20 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS?
 L 750 L3-21 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES?
 L 751 L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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O TSK TITLES

306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
(M) (M) (M) (M) (M) (M)

TIMING CIRCUITS (M1), USE OF SIGNAL GENERATORS (M2), MOTORS
AND GENERATORS (M3)

M 752	M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?	42.4	12.4	.0	12.5	.0	.0	.0	.0	75.0
M 753	M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING CIRCUITS?	15.2	5.6	.0	6.3	.9	.0	.0	.0	54.5
M 754	M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?	37.9	14.9	.0	12.5	1.9	4.8	.9	.9	72.7
M 755	M1-4 DO YOU WORK WITH BLOCKING OSCILLATOR TIMING CIRCUITS?	15.2	5.6	.0	6.3	.9	.0	.0	.0	38.6
M 756	M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	37.9	6.2	.0	6.3	.9	9.5	.0	.0	25.0
M 757	M1-6 DO YOU USE OR REFER TO RISE TIME?	33.3	14.9	.0	50.0	.9	.0	.0	.0	68.2
M 758	M1-7 DO YOU USE OR REFER TO FALL OR FLICKER TIME?	21.2	14.3	.0	50.0	.9	.0	.0	.0	56.8
M 759	M1-8 DO YOU USE OR REFER TO SWEEP TIME?	39.4	19.3	.0	43.8	3.8	.0	.0	.0	77.3
M 760	M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?	16.7	11.2	.0	6.3	1.9	.0	.0	.0	56.8
M 761	M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?	22.7	13.0	.0	12.5	1.9	.0	.0	.0	56.8
M 762	M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS?	16.7	7.5	.0	6.3	1.9	.0	.0	.0	45.5
M 763	M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS?	15.2	6.6	.0	6.3	1.9	.0	.0	.0	43.2
M 764	M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	28.8	59.0	.0	63.8	27.4	81.0	15.8	75.0	
M 765	M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS?	22.7	55.3	.0	56.3	28.8	73.8	12.3	75.0	
M 766	M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?	21.2	47.2	.0	31.3	14.2	28.6	7.9	59.1	
M 767	M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS?	19.7	44.7	.0	12.5	10.4	26.6	7.0	54.5	
M 768	M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS?	18.2	32.3	.0	12.5	4.7	14.3	1.8	52.3	
M 769	M2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?	18.2	8.7	.0	50.0	11.3	52.4	4.4	52.3	
M 770	M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE?	12.1	5.0	.0	31.3	.9	.0	.0	47.7	
M 771	M2-8 DO YOU USE PF GENERATORS LESS THAN 1,000 MHZ?	4.5	5.0	.0	6.3	3.8	.0	.9	40.9	
M 772	M2-9 DO YOU USE RF GENERATORS GREATER THAN 1,000 MHZ?	4.5	1.2	.0	6.3	1.9	.0	.9	27.3	
M 773	M2-10 DO YOU USE WHITE NOISE GENERATORS?	.0	.6	.0	.0	1.9	.0	.0	38.6	
M 774	M2-11 DO YOU USE PATTERN GENERATORS?	4.5	37.9	.0	.0	2.8	4.8	.0	36.4	
M 775	M2-12 DO YOU USE PSEUDO-RANDOM GENERATORS?	.0	5.0	.0	.0	1.9	.0	.0	11.4	
M 776	M2-13 DO YOU USE TIME MARK GENERATORS?	.0	15.5	.0	6.3	1.9	.0	.0	54.5	
M 777	M2-14 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS?	7.6	19.3	.0	25.0	8.5	9.5	.9	50.0	
M 778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	72.7	77.0	51.7	25.0	19.8	19.0	10.5	48.4	
M 779	M3-2 DO YOU INSPECT MOTORS?	72.7	79.5	44.8	25.0	18.2	3.5	8.1	89.9	
M 780	M3-3 DO YOU CLEAN OR LUBRICATE MOTORS?	74.2	76.4	13.8	25.0	18.6	9.5	3.5	90.9	
M 781	M3-4 DO YOU OPERATE MOTORS?	66.7	72.0	44.8	25.0	18.9	4.8	5.3	90.9	
M 782	M3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTOR?	74.2	77.0	.0	25.0	12.3	9.5	3.5	90.9	

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O TASK TITLES

306 306 316 316 362 362 362 918
51 52 50F 52F 53 54 50
(M) (M) (M) (M) (M) (M)

M 793 M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?
M 794 M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?
M 785 M3-8 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?
M 786 M3-9 DO YOU PERFORM TASKS ON MOTOR FIELD COILS?
M 787 M3-10 DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?
M 788 M3-11 DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?
M 789 M3-12 DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?
M 790 M3-13 DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?
M 791 M3-14 DO YOU PERFORM ANY TASKS ON MOTOR COMMUTATORS?
M 792 M3-15 DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?
M 793 M3-16 DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOP?

M 794 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR?
M 795 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?
M 796 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS?
M 797 M3-20 DO YOU WORK WITH INDUCTION MOTORS?
M 798 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS?
M 799 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?

M 800 M3-23 DO YOU WORK WITH SERVOS OR SYNCHROS MOTORS?
M 801 M3-24 DO YOU WORK WITH SHADED-POLE MOTORS?
M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?
M 803 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?
M 804 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?
M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?
M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?

M 807 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?
M 808 M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?

N METER MOVEMENTS (N1), SATURABLE REACTORS AND MAGNETIC AMPLIFIERS (N2), WAVESHAPING CIRCUITS (N3)

N 809 N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.
N 810 N1-2 DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?
N 811 N1-3 DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?
N 812 N1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?

68.2 73.3 86.2 75.0 67.0 66.7 62.3 88.6
7.6 32.9 3.4 41.8 13.2 14.3 5.3 43.2
13.6 31.7 3.4 18.8 17.9 9.5 4.4 45.5
10.6 17.4 3.4 18.8 14.2 14.3 .9 43.2

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Q YOK TITLES

N 813	N1-5	DO YOU READ METER SCALES?	306	306	316	362	362	918
N 814	N1-6	DO YOU EXTEND THE RANGE OF AMMETERS?	51	52	50F	51	54	50
N 815	N1-7	DO YOU EXTEND THE RANGE OF VOLTMETERS?	(M)	(M)	(M)	(M)	(M)	(M)
N 816	N1-8	DO YOU ZERO OHMMETERS?	68.2	76.4	86.2	75.0	66.0	59.5
N 817	N1-9	DO YOU ZERO AMMETERS?	25.8	31.1	27.6	18.8	30.2	14.3
N 818	N1-10	DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)?	37.0	39.8	41.4	25.0	36.8	23.8
N 819	N1-11	DO YOU CONSIDER BALLASTIC RESPONSE OF METER MOVEMENTS?	66.7	75.2	72.4	81.3	67.9	66.7
N 820	N1-12	DO YOU CONSIDER OTHER METER MOVEMENTS?	24.2	29.2	31.0	62.5	32.1	14.3
N 821	N2-1	DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1; IF YES, CONTINUE.	33.3	36.0	24.1	50.0	22.6	23.8
N 822	N2-2	DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	6.1	6.2	3.4	.0	7.5	.0
N 823	N2-3	DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	22.7	28.0	20.7	25.0	24.5	14.3
N 824	N2-4	DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	1.5	.6	.0	25.0	1.9	.0
N 825	N2-5	DO YOU TROUBLESHOOT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	.0	.6	.0	12.5	1.9	.0
N 826	N2-6	DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS?	.0	.6	.0	12.5	1.9	.0
N 827	N2-7	DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS?	.0	.6	.0	6.3	1.9	.0
N 828	N2-8	DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?	.0	.6	.0	18.8	.0	.0
N 829	N2-9	DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	.0	1.2	.0	.0	.0	.0
N 830	N2-10	DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	1.5	.6	.0	12.5	.9	.0
N 831	N2-11	DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS?	1.5	1.9	.0	6.3	.0	.0
N 832	N2-12	DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS?	1.5	1.9	.0	18.8	.0	.0
N 833	N3-1	DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.	43.9	21.1	3.4	12.5	1.8	.0
N 834	N3-2	DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?	31.8	15.5	.0	.0	1.9	.0
N 835	N3-3	DO YOU USE OR REFER TO PULSE WIDTH (PW)?	34.8	16.8	.0	.0	2.8	.0
N 836	N3-4	DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)?	19.7	11.8	.0	.0	2.8	.0
N 837	N3-5	DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)?	18.2	9.3	3.4	.0	2.8	.0
N 838	N3-6	DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?	28.8	1.5	.0	.0	1.7	.0
N 839	N3-7	DO YOU USE OR REFER TO INTEGRATING CIRCUITS?	25.4	11.2	.0	8.3	1.9	.0
N 840	N3-8	DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (NOT TOO LONG, MEDIUM, OR SHORT)?	16.7	9.3	.0	5.3	.0	.0

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D TSK TITLES

N 841 N3-9 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS
DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT
AND OUTPUT CONFIGURATION?
N 842 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE
CIRCUITS?
N 843 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID
STATE CIRCUITS?
N 844 N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR
SOLID STATE CIRCUITS?
N 845 N3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID
STATE CIRCUITS?
N 846 N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE
CIRCUITS?
N 847 N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?
N 848 N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING
CIRCUITS?
N 849 N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?
N 850 N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING
CIRCUITS?
N 851 N3-19 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING
CIRCUIT COMPONENTS?
N 852 N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR
SHAPING CIRCUITS?
N 853 N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING
COMPONENTS?

0 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS (01), PULSE
MODULATION SYSTEMS (02), ANTENNAS (03)

0 854 01-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS
IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-1; IF YES,
CONTINUE.
0 855 01-2 DO YOU INSPECT SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
0 856 01-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
0 857 01-4 DO YOU ALIGN SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
0 858 01-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
0 859 01-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?
0 860 01-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
0 861 01-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?

306	306	316	362	362	362	918
51	52	52F	51	53	54	50
(H)	(H)	(H)	(H)	(H)	(H)	(H)
15.2	5.0	.0	.0	.0	.0	34.1
33.3	18.6	.0	6.3	.0	.0	68.2
9.1	7.5	.0	.0	.0	.0	52.3
21.2	9.9	.0	6.3	.0	.0	65.9
7.6	7.5	.0	.0	.0	.0	63.6
10.6	5.0	.0	.0	.0	.0	68.2
28.8	12.4	.0	6.3	.9	.0	61.4
21.2	10.6	.0	6.3	.9	.0	61.4
12.1	8.1	.0	.0	.0	.0	61.4
27.3	13.0	.0	6.3	.9	.0	61.4
30.3	10.6	.0	.0	.9	.0	59.1
28.8	9.9	.0	6.3	.9	.0	59.1
30.3	11.0	.0	.0	.9	.0	61.4
3.0	1.2	13.8	.0	1.9	4.8	.0
1.5	.6	6.9	.0	1.9	4.8	.0
1.5	1.2	.0	.0	1.9	4.8	.0
1.5	1.2	3.4	.0	1.9	4.8	.0
1.5	1.2	10.3	.0	1.9	4.8	.0
1.5	1.2	3.4	.0	.0	4.8	.0
3.0	.6	3.4	.0	.9	4.8	.0
3.0	.6	.0	.0	.9	4.8	.0

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FORWARD ELECTRONIC PRINCIPLES LABORATORY DATA

NO	TASK	TITLE	106 (M)	306 (M)	316 (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
00862	01-9 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM AUDIO AMPLIFIER STAGE?		7.0	1.2	.0	.9	.0	.0	.0
00863	01-10 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?		1.5	1.2	.0	.0	.0	.0	.0
00864	01-11 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?		1.5	1.2	.0	.0	.0	.0	.0
00865	01-12 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?		1.5	.6	.0	.0	.0	.0	.0
00866	01-13 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?		.0	.6	.0	.9	.0	.0	.0
00867	01-14 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?		.0	.6	.0	.9	.0	.0	.0
00868	01-15 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?		3.0	1.2	3.4	.9	.0	.0	.0
00869	01-16 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?		1.5	1.2	.0	.9	.0	.0	.0
00870	01-17 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?		3.0	1.2	.0	.0	.0	.0	.0
00871	01-18 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?		1.5	1.2	6.9	.0	.0	.0	.0
00872	01-19 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?		1.5	.6	3.4	.0	.0	.0	.0
00873	01-20 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?		.0	.6	3.4	.9	.0	.0	.0
00874	01-21 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?		.0	1.2	.0	.0	.0	.0	.0
00875	01-22 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?		1.5	1.2	6.9	.9	.0	.0	.0
00876	01-23 DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSR TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	3.4	.0	.0	.0	.0
00877	01-24 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSR TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	3.4	.0	.0	.0	.0
00878	01-25 DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSR TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	.0	.0	.0	.0	.0
00879	01-26 DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSR TRANSMIT OR RECEIVE SYSTEMS?		.0	.6	.0	.0	.0	.0	.0
00880	01-27 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSR OR ISB TRANSMITTERS?		.0	.6	.0	.0	.0	.0	.0
00881	01-28 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH SSR OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?		1.5	1.2	.0	.0	.0	.0	.0
00882	01-29 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH SSR OR ISB RECEIVER SCHEMATIC DIAGRAMS?		1.5	.0	.0	.0	.0	.0	.0
00883	01-30 DO YOU PERFORM AERONAUTIC STATION ASSESSMENT PROGRAMS (ASAP)?		.0	.5	.0	.0	.0	.0	.0
00884	02-1 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NOT, GO TO ITEM 02-17 IF YES, CONTINUE.		1.5	.0	.0	.0	.0	.0	.0
00885	02-2 DO YOU INSPECT PULSE MODULATION SYSTEMS?		1.5	1.2	.0	.0	.0	.0	.0
00886	02-3 DO YOU CLEAN PULSE MODULATION SYSTEMS?		1.5	1.0	.0	.0	.0	.0	.0
00887	02-4 DO YOU ALIGN PULSE MODULATION SYSTEMS?		1.0	1.2	.0	.0	.0	.0	.0

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D TASK TITLES

306 (H)	306 (H)	316 50F (H)	316 52F (H)	362 51 (H)	362 53 (H)	362 54 (H)	918 50 (H)	
0 888	02-5	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.6	13.6
0 889	02-6	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	1.8	13.6
0 890	02-7	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.6	11.4
0 891	02-8	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	1.8	13.6
0 892	02-9	DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	.0	15.9
0 893	02-10	DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?	3.0	.6	.0	.0	1.8	15.9
0 894	02-11	DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	.9	11.4
0 895	02-12	DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?	4.5	.0	.0	.0	.9	11.4
0 896	02-13	DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?	3.0	.6	.0	.0	1.8	11.4
0 897	02-14	DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?	4.5	.6	.0	.0	.0	13.6
0 898	02-15	DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?	3.0	.0	.0	.0	.0	2.6
0 899	02-16	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?	.0	.6	.0	.0	.0	15.9
0 900	02-17	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODE STAGE?	.0	.0	.0	.0	.0	15.9
0 901	02-18	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	1.5	.6	.0	.0	.9	15.9
0 902	02-19	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMER STAGE?	1.5	.0	.0	.0	.0	15.9
0 903	02-20	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRON STAGE?	.0	.0	.0	.0	.0	13.6
0 904	02-21	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	1.5	.0	.0	.0	.0	13.6
0 905	02-22	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?	.0	.6	.0	.0	.0	11.4
0 906	02-23	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?	1.5	.6	.0	.0	.0	13.6
0 907	02-24	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	1.5	.6	.0	.0	.0	15.9
0 908	02-25	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	1.5	.6	.0	.0	.0	13.6
0 909	02-26	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	1.5	.6	.0	.0	.0	15.9
0 910	02-27	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?	.0	1.2	.0	.0	.0	11.4
0 911	02-28	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIER STAGE?	.0	.6	.0	.0	.0	6.8
0 912	02-29	DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	.6	.0	.0	.0	13.6

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D TSK TITLES

0 941 03-18	00 YOU WORK WITH RHOMBIC BASIC ANTENNAS?	306	316	316	362	362	918
0 942 03-19	00 YOU WORK WITH DIPOLE BASIC ANTENNAS?	.0	.6	.0	.0	.0	.0
0 943 03-20	00 YOU WORK WITH SCIMITAR BASIC ANTENNAS?	.0	3.1	6.9	.0	.0	2.3
0 944 03-21	00 YOU WORK WITH PARABOLIC BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0
0 945 03-22	00 YOU WORK WITH GROUND PLANE BASIC ANTENNAS?	.0	3.1	.0	.0	.0	.0
0 946 03-23	00 YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?	.0	3.7	3.4	.0	.0	4.5
0 947 03-24	00 YOU WORK WITH BROADSIDE ARRAYS?	.0	2.5	6.9	.0	.0	2.3
0 948 03-25	00 YOU WORK WITH END-FIRE ARRAYS?	.0	1.2	.0	.0	.0	.0
0 949 03-26	00 YOU WORK WITH CARDIOID ARRAYS?	1.5	1.2	3.4	.0	.0	.0
0 950 03-27	00 YOU WORK WITH COLLINER ARRAYS?	1.5	1.2	.0	.0	.0	.0
0 951 03-28	00 YOU WORK WITH PHASE ARRAYS?	.0	.6	.0	.0	.0	.0
0 952 03-29	00 YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?	.0	.0	.0	.0	.0	4.5
0 953 03-30	00 YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?	.0	.6	.0	.0	.0	.0
0 954 03-31	00 YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?	.0	1.2	.0	.0	.0	4.5
0 955 03-32	00 YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?	.0	.0	.0	.0	.0	.0
0 956 03-33	00 YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?	.0	1.2	.0	.0	.0	2.3
0 957 03-34	00 YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?	.0	1.2	.0	.0	.0	2.3
0 958 03-35	00 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?	.0	1.2	.0	.0	.0	2.3
0 959 03-36	00 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?	.0	.6	.0	.0	.0	.0
0 960 03-37	00 YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?	.0	.6	.0	.0	.0	2.3
0 961 03-38	00 YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?	.0	2.5	.0	.0	.0	2.3
0 962 03-39	00 THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS?	.0	1.2	.0	.0	.0	.0
0 963 03-40	00 THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS?	.0	1.2	.0	.0	.0	.0
0 964 03-41	00 THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T KNOW WHAT KIND OF ELEMENT?	.0	2.5	17.2	.0	.0	2.3
0 965 03-42	00 YOU WORK ON UNIDIRECTIONAL ANTENNAS?	.0	3.7	6.9	.0	.0	.0
0 966 03-43	00 YOU WORK ON BIDIRECTIONAL ANTENNAS?	.0	3.7	3.4	.0	.0	.0
0 967 03-44	00 YOU WORK ON OMNIDIRECTIONAL ANTENNAS?	1.5	4.3	17.2	.0	.0	4.5
0 968 03-45	00 YOU WORK WITH ROTARY ANTENNA ARRAYS?	.0	2.5	3.4	.0	.0	.0

P TRANSMISSION LINES (P1), WAVEGUIDES AND CAVITY RESONATORS (P2), MICROWAVE AMPLIFIERS AND OSCILLATORS (P3)

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSK TITLES

P 969	PI-1	IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES? (DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES.) IF NO, GO TO ITEM P2-1; IF YES, CONTINUE.	306	306	316	316	362	362	918
P 970	PI-2	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE COPPER LOSS OR *I SUB 2 P* LOSS IN TRANSMISSION LINES?	51	52	50F	51	53	54	50
			(H)	(M)	(H)	(M)	(H)	(M)	(M)
P 971	PI-3	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES?	7.6	14.9	.0	.0	39.6	23.8	34.2
P 972	PI-4	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE RADIATION LOSS?	1.5	1.9	.0	.0	5.7	4.8	1.8
P 973	PI-5	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE DIELECTRIC LOSS?	1.5	.6	.0	.0	6.6	.0	.9
P 974	PI-6	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE LEAKAGE LOSSES?	3.0	3.1	.0	.0	1.7	.0	.0
P 975	PI-7	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE FARADAY SHIELD?	3.0	1.2	.0	.0	8.5	.0	.0
P 976	PI-8	DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES?	4.5	5.0	.0	.0	10.4	.0	3.5
P 977	PI-9	DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES?	1.5	2.5	.0	.0	3.8	.0	1.8
P 978	PI-10	DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES?	3.0	10.6	.0	.0	36.8	23.8	26.3
P 979	PI-11	DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES?	1.5	8.1	.0	.0	16.0	4.8	14.0
P 980	PI-12	DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES?	4.5	8.7	.0	.0	18.9	4.8	14.0
P 981	PI-13	DO YOU TROUBLESHOOT TRANSMISSION LINES?	6.1	11.8	.0	.0	11.3	.0	7.9
P 982	PI-14	DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)?	3.0	5.6	.0	.0	5.7	.0	2.6
P 983	PI-15	DO YOU SELECT APPROPRIATE TRANSMISSION LINE TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS?	4.5	10.6	.0	.0	39.8	19.0	33.3
P 984	PI-16	DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS?	3.0	8.7	.0	.0	22.6	4.5	7.0
P 985	PI-17	DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?	3.0	1.9	.0	.0	5.7	.0	.0
P 986	PI-18	DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?	7.0	7.5	.0	.0	15.1	19.0	5.5
P 987	PI-19	DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS?	.0	.6	.0	.0	1.9	.0	.0
P 988	PI-20	DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS?	.0	.6	.0	.0	1.9	.0	.0
P 989	PI-21	DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING?	.0	.6	.0	.0	1.9	.0	.0
P 990	PI-22	DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z ₀) OF TRANSMISSION LINES?	1.5	1.9	.0	.0	14.2	14.3	2
P 991	PI-23	DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z ₀) OF TRANSMISSION LINES?	.0	.0	.0	.0	1.4	.0	.0

306 306 316 316 362 362 362 918
51 52 52F 51 53 54 50
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- P1025 P2-26 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS?
- P1026 P2-27 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS?
- P1027 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OR .7 WAVELENGTHS OF THE OPERATING FREQUENCY?
- P1028 P2-29 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 AS AN AVERAGE?
- P1029 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION?
- P1030 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "H" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES?
- P1031 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "H" OR "H" LINES IN WAVEGUIDES?
- P1032 P2-33 DO YOU MEASURE THE TIME PHASE OF "H" OR "H" LINES IN WAVEGUIDES?
- P1033 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "H" OR "H" LINES IN WAVEGUIDES?
- P1034 P2-35 DO YOU WORK WITH HIGH POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?
- P1035 P2-36 DO YOU WORK WITH LOW POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?
- P1036 P2-37 DO YOU WORK WITH LOW ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?
- P1037 P2-38 DO YOU WORK WITH IDEALIZED WAVEGUIDES OR IDEALIZED ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?
- P1038 P2-39 DO YOU WORK WITH IDEALIZED JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?
- P1039 P2-40 DO YOU WORK WITH ROTATING JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?
- P1040 P2-41 DO YOU WORK WITH JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?
- P1041 P2-42 DO YOU WORK WITH CAVITY RESONATORS USING ELECTRICAL METHODS?
- P1042 P2-43 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1043 P2-44 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1044 P2-45 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1045 P2-46 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1046 P2-47 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1047 P2-48 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1048 P2-49 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1049 P2-50 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1050 P2-51 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1051 P2-52 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1052 P2-53 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1053 P2-54 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1054 P2-55 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1055 P2-56 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1056 P2-57 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1057 P2-58 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1058 P2-59 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1059 P2-60 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1060 P2-61 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1061 P2-62 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1062 P2-63 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1063 P2-64 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1064 P2-65 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1065 P2-66 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1066 P2-67 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1067 P2-68 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1068 P2-69 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1069 P2-70 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1070 P2-71 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1071 P2-72 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1072 P2-73 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1073 P2-74 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1074 P2-75 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1075 P2-76 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1076 P2-77 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1077 P2-78 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1078 P2-79 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1079 P2-80 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1080 P2-81 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1081 P2-82 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1082 P2-83 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1083 P2-84 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1084 P2-85 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1085 P2-86 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1086 P2-87 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1087 P2-88 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1088 P2-89 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1089 P2-90 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1090 P2-91 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1091 P2-92 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1092 P2-93 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1093 P2-94 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1094 P2-95 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?
- P1095 P2-96 DO YOU WORK WITH CAVITY RESONATORS USING ACOUSTIC METHODS?
- P1096 P2-97 DO YOU WORK WITH CAVITY RESONATORS USING ELECTROMAGNETIC METHODS?
- P1097 P2-98 DO YOU WORK WITH CAVITY RESONATORS USING MECHANICAL METHODS?
- P1098 P2-99 DO YOU WORK WITH CAVITY RESONATORS USING THERMAL METHODS?
- P1099 P2-100 DO YOU WORK WITH CAVITY RESONATORS USING OPTICAL METHODS?

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
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P1046 P3-3 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1047 P3-4 DO YOU USE OR REFER TO LEAD INDUCTANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1048 P3-5 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1049 P3-6 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION?

P1050 P3-7 DO YOU USE OR REFER TO ELECTRON BUNCHING?

P1051 P3-8 DO YOU WORK WITH TWO-CAVITY KLYSTRONS?

P1052 P3-9 DO YOU WORK WITH THREE-CAVITY KLYSTRONS?

P1053 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS?

P1054 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)?

P1055 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS?

P1056 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS?

P1057 P3-14 DO YOU WORK WITH MAGNETRONS?

P1058 P3-15 DO YOU WORK WITH BACKWARD WAVE OSCILLATORS (BWO)?

P1059 P3-16 DO YOU INSPECT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1060 P3-17 DO YOU CLEAN KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1061 P3-18 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY?

P1062 P3-19 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY?

P1063 P3-20 DO YOU PERFORM OPERATIONAL CHECKS ON KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1064 P3-21 DO YOU TROUBLESHOOT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1065 P3-22 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRONS OR TWT'S?

P1066 P3-23 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS?

P1067 P3-24 DO YOU INSPECT PARAMETRIC AMPLIFIERS?

P1068 P3-25 DO YOU CLEAN PARAMETRIC AMPLIFIERS?

P1069 P3-26 DO YOU ADJUST PARAMETRIC AMPLIFIERS?

P1070 P3-27 DO YOU TUNE PARAMETRIC AMPLIFIERS?

P1071 P3-28 DO YOU PERFORM OPERATIONAL CHECKS ON PARAMETRIC AMPLIFIERS?

P1072 P3-29 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS?

P1073 P3-30 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIERS?

P1074 P3-31 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS?

P1075 P3-32 DO YOU INSPECT MAGNETRONS?

P1076 P3-33 DO YOU CLEAN MAGNETRONS?

P1077 P3-34 DO YOU ADJUST MAGNETRONS?

P1078 P3-35 DO YOU TUNE MAGNETRONS?

P1079 P3-36 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS?

P1080 P3-37 DO YOU TROUBLESHOOT MAGNETRONS?

P1046	.0	.0	.0	.0	.0	.0	.0
P1047	.0	.0	.0	.0	.0	.0	.0
P1048	.0	.0	.0	.0	.0	.0	.0
P1049	.0	.0	.0	.0	.9	.0	2.3
P1050	.0	.0	.0	.0	.0	.0	.0
P1051	.0	.0	.0	.0	.0	.0	.0
P1052	.0	.0	.0	.0	.0	.0	.0
P1053	.0	.0	.0	.0	.0	.0	.0
P1054	.0	.0	.0	.0	.0	.0	.0
P1055	.0	.0	.0	.0	.0	.0	.0
P1056	.0	.0	.0	.0	.0	.0	.0
P1057	.0	.0	.0	.0	.0	.0	.0
P1058	.0	.0	.0	.0	.0	.0	.0
P1059	.0	.0	.0	.0	.0	.0	.0
P1060	.0	.0	.0	.0	.0	.0	.0
P1061	.0	.0	.0	.0	.0	.0	.0
P1062	.0	.0	.0	.0	.0	.0	.0
P1063	.0	.0	.0	.0	.0	.0	.0
P1064	.0	.0	.0	.0	.0	.0	.0
P1065	.0	.0	.0	.0	.0	.0	.0
P1066	.0	.0	.0	.0	.0	.0	.0
P1067	.0	.0	.0	.0	.0	.0	.0
P1068	.0	.0	.0	.0	.9	.0	.0
P1069	.0	.0	.0	.0	.9	.0	.0
P1070	.0	.0	.0	.0	.9	.0	.0
P1071	.0	.0	.0	.0	.0	.0	.0
P1072	.0	.0	.0	.0	.0	.0	.0
P1073	.0	.0	.0	.0	.0	.0	.0
P1074	.0	.0	.0	.0	.0	.0	.0
P1075	.0	.0	.0	.0	.0	.0	.0
P1076	.0	.6	.0	.0	.0	.0	.0
P1077	.0	.0	.0	.0	.0	.0	.0
P1078	.0	.0	.0	.0	.0	.0	.0
P1079	.0	.6	.0	.0	.0	.0	.0
P1080	.0	.0	.0	.0	.0	.0	.0

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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S Y N		T I T L E	706 (M)	306 (M)	316 50F (M)	362 51 (M)	362 51 (M)	362 51 (M)	918 54 (M)
P1031	P3-32	DO YOU REMOVE OR REPLACE COMPLETE MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0
P1032	P3-33	DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS?	.0	.0	.0	.0	.0	.0	.0
P1033	P3-40	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1034	P3-41	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHED CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1035	P3-42	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1036	P3-47	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FEEDBACK LOOP COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1037	P3-48	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF UPLIFT SPACE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1038	P3-41	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHED GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1039	P3-42	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHED CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1040	P3-43	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1041	P3-44	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CAPACITOR COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1042	P3-45	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1043	P3-46	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1044	P3-47	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1045	P3-48	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID CAVITY COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1046	P3-49	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1047	P3-50	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1048	P3-51	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1049	P3-52	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1050	P3-53	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1051	P3-54	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1052	P3-55	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1053	P3-56	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1054	P3-57	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1055	P3-58	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1056	P3-59	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1057	P3-60	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1058	P3-61	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1059	P3-62	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1060	P3-63	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1061	P3-64	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1062	P3-65	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1063	P3-66	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1064	P3-67	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1065	P3-68	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1066	P3-69	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1067	P3-70	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1068	P3-71	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1069	P3-72	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1070	P3-73	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1071	P3-74	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1072	P3-75	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1073	P3-76	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1074	P3-77	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1075	P3-78	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1076	P3-79	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1077	P3-80	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1078	P3-81	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1079	P3-82	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1080	P3-83	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1081	P3-84	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1082	P3-85	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1083	P3-86	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1084	P3-87	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1085	P3-88	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1086	P3-89	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1087	P3-90	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1088	P3-91	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1089	P3-92	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1090	P3-93	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1091	P3-94	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1092	P3-95	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1093	P3-96	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1094	P3-97	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1095	P3-98	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1096	P3-99	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1097	P3-100	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1098	P3-101	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1099	P3-102	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1100	P3-103	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1101	P3-104	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1102	P3-105	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1103	P3-106	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1104	P3-107	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1105	P3-108	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1106	P3-109	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1107	P3-110	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1108	P3-111	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1109	P3-112	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1110	P3-113	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1111	P3-114	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1112	P3-115	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1113	P3-116	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1114	P3-117	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1115	P3-118	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1116	P3-119	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1117	P3-120	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1118	P3-121	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1119	P3-122	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1120	P3-123	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1121	P3-124	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1122	P3-125	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1123	P3-126	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1124	P3-127	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1125	P3-128	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1126	P3-129	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1127	P3-130	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1128	P3-131	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1129	P3-132	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1130	P3-133	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1131	P3-134	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1132	P3-135	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1133	P3-136	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1134	P3-137	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1135	P3-138	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1136	P3-139	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1137	P3-140	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1138	P3-141	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1139	P3-142	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1140	P3-143	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1141	P3-144	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1142	P3-145	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1143	P3-146	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1144	P3-147	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1145	P3-148	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1146	P3-149	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1147	P3-150	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1148	P3-151	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1149	P3-152	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1150	P3-153	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1151	P3-154	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1152	P3-155	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON PLATE COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1153	P3-156	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID COMPONENTS OF REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1154	P3-								

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O TASK TITLES

	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 (M)	362 (M)	362 (M)	362 (M)	51 (M)	51 (M)	54 (M)	54 (M)	918 (M)
P1106 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1107 P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1108 P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0
P1109 P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.9	.0
P1110 P3-67 DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.9	.0
P1111 P3-68 DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.9	.0
P1112 P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.9	.0
P1113 P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.9	.0
P1114 P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1115 P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1116 P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1117 P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1118 P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1119 P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1120 P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

0 REGISTERS (Q1), STORAGE DEVICES (Q2), DIGITAL-TO-ANALOG AND
DIGITAL-TO-DIGITAL CONVERTERS (Q3)

	69.7	31.1	13.8	18.8	2.8	.0	1.0	54.5
Q1121 Q1-1 DO YOU USE OR REFER TO STORAGE REGISTERS?	69.7	31.1	13.8	18.8	2.8	.0	1.0	54.5
Q1122 Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?	77.3	34.8	.0	18.8	2.8	4.8	.0	56.8
Q1123 Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS?	72.7	33.5	3.4	18.8	1.9	.0	.0	54.5
Q1124 Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE REGISTERS?	66.7	30.4	3.4	18.8	1.9	.0	.0	54.5
Q1125 Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTER CIRCUITS?	77.3	32.9	.0	18.8	.9	4.8	.9	54.5
Q1126 Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?	63.6	27.3	3.4	18.8	.9	.0	1.8	52.3
Q1127 Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED?	72.7	27.3	.0	12.5	1.9	.0	.9	50.0

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306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(H)	(M)	(M)	(M)	(M)	(M)

Q1160 Q3-6 DO YOU PERFORM TASKS ON HOLD FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1161 Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1162 Q3-8 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS BUT DON'T KNOW WHICH FUNCTION?

Q1164 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?

Q1165 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?

Q1166 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?

Q1167 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?

Q1168 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?

Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?

Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (D/A) CONVERTERS?

Q1171 Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?

Q1172 Q3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?

Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?

Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?

Q1175 Q3-21 WAS THE COMPUTER OR LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT DUTIES?

Q1176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A "00" PREFIX?

PHANTASTRON (R1), SCHMITT TRIGGERS (R2), CABLE FABRICATION (R3)

R1177 R1-1 DO YOU WORK WITH PHANTASTRON CIRCUITRY? IF NO, GO TO ITEM R2-1. IF YES, CONTINUE.

R1178 R1-2 PHANTASTRON CIRCUITRY HAS VARIABLE-DELAY APPLICATIONS IN MY JOB.

R1179 R1-3 PHANTASTRON CIRCUITRY HAS SEARCH-LOCK AUTOMATIC FREQUENCY CONTROLS (AFC) APPLICATIONS IN MY JOB.

R1180 R1-4 PHANTASTRON CIRCUITRY HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.

RECOMMENDED REVISIONS

REVISION NO. 1

REVISION NO. 1

REVISION NO.	REVISION DESCRIPTION	REVISION NO.	REVISION DESCRIPTION
1	REVISION NO. 1	1	REVISION NO. 1
2	REVISION NO. 2	2	REVISION NO. 2
3	REVISION NO. 3	3	REVISION NO. 3
4	REVISION NO. 4	4	REVISION NO. 4
5	REVISION NO. 5	5	REVISION NO. 5
6	REVISION NO. 6	6	REVISION NO. 6
7	REVISION NO. 7	7	REVISION NO. 7
8	REVISION NO. 8	8	REVISION NO. 8
9	REVISION NO. 9	9	REVISION NO. 9
10	REVISION NO. 10	10	REVISION NO. 10

REVISION NO. 1
REVISION NO. 2
REVISION NO. 3
REVISION NO. 4
REVISION NO. 5
REVISION NO. 6
REVISION NO. 7
REVISION NO. 8
REVISION NO. 9
REVISION NO. 10

REVISION NO. 1

REVISION NO. 1
REVISION NO. 2
REVISION NO. 3
REVISION NO. 4
REVISION NO. 5
REVISION NO. 6
REVISION NO. 7
REVISION NO. 8
REVISION NO. 9
REVISION NO. 10

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

TITLES

S1211 53-5 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIP
CHOPPER COIL ITEMS?

SI213 S3-7 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATIONS?

51215 53-9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?

TELEVISION (T4)

Y121: T1-2 DO YOU INSPECT INFRARED SYSTEMS?

11-4 DO YOU SERVICE INFRARED SYSTEMS?

T1-6 DO YOU OPERATE INFRARED SYSTEMS?

SYSTEMS:
 T1223 T1-8 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED
 SYSTEMS?

TT1225 FT-10 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS?

PARIS?
11227 11-12 00 YOU USE OR REFEP TO FAR REGIONS?
11228 11-17 00 YOU USE OR REFEP TO INTERMEDIATE REGIONS?
11229 11-17 00 YOU USE OR REFEP TO INTERMEDIATE REGIONS?

T112-01 DO YOU USE OR REFER TO MICHIGANS MAP?
T112-02 DO YOU USE OR REFER TO SPRAY BOOIES?
T112-03 DO YOU USE OR REFER TO BLACK BOOIES?
T112-04 DO YOU USE OR REFER TO BLOOD BOOIES?

Y1234 Y1-19 DO NOT USE OR REFER TO SCATTERING?
Y1235 Y1-20 DO NOT USE OR REFER TO ABSOLUTE ZERO
Y1236 Y1-21 DO NOT ASSOCIATE THESE ON OUTLIER

TI-23	DO YOU PERFORM TASKS ON ERECTOR LENSES?
TI-238	DO YOU PERFORM TASKS ON ERECTOR LENSES?
TI-239	DO YOU PERFORM TASKS ON OCULAR LENSES?

[illegible]

SEVEN YEAR ELECTRONIC PRINCIPLES INVENTORY DATA

OCUPATIONAL ANALYSIS PROGRAM
(AFMHC BATH) RANDOLPH AFB TX

0 FOR

VALUES

FOPTOL PAGE 00

	306 (M)	316 EOP (M)	318 EOP (M)	362 (M)	362 (M)	418 (M)	418 (M)
11240 11-25 DO YOU PERFORM TASKS ON CORRECTION LENSES?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11241 11-26 DO YOU PERFORM TASKS ON FILTERS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11242 11-27 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11243 11-28 DO YOU PERFORM TASKS ON PLANE MIRRORS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11244 12-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS? IF NO, GO TO ITEM 13-1; IF YES, CONTINUE.	4.5	0.0	0.0	0.0	0.0	0.0	0.0
11245 12-2 DO YOU INSPECT LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11246 12-3 DO YOU CLEAN LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11247 12-4 DO YOU SERVICE LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11248 12-5 DO YOU OPERATE LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11249 12-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11250 12-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11251 12-8 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11252 12-9 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS?	3.0	0.0	0.0	0.0	0.0	0.0	0.0
11253 12-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11254 12-11 DO YOU USE OR REFER TO ANGSTROMS (AD)?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11255 12-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11256 12-13 DO YOU USE OR REFER TO GROUND STATE?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11257 12-14 DO YOU USE OR REFER TO EXCITED STATE?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11258 12-15 DO YOU USE OR REFER TO PACKET OF RADIATIONS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11259 12-16 DO YOU USE OR REFER TO PHOTONS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11260 12-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSIONS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11261 12-18 DO YOU USE OR REFER TO STIMULATED EMISSIONS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11262 12-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11263 12-20 DO YOU USE OR REFER TO INVERSION LEVELS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11264 12-21 DO YOU USE OR REFER TO MONOCHROMATOR?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11265 12-22 DO YOU USE OR REFER TO ACTIVE MATERIALS?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11266 12-23 DO YOU USE OR REFER TO PUMPING SOURCE?	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11267 12-24 DO YOU USE OR REFER TO FULL CIRCLED (100% EFFECTIVE)?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11268 12-25 DO YOU USE OR REFER TO (FOR REFLECTIVE)?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11269 12-26 DO YOU USE OR REFER TO FLUORESCENCE?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11270 12-27 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11271 12-28 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11272 12-29 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11273 12-30 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11274 12-31 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11275 12-32 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11276 12-33 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11277 12-34 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11278 12-35 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11279 12-36 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11280 12-37 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11281 12-38 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11282 12-39 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11283 12-40 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11284 12-41 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11285 12-42 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11286 12-43 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11287 12-44 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11288 12-45 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11289 12-46 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11290 12-47 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11291 12-48 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11292 12-49 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11293 12-50 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11294 12-51 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11295 12-52 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11296 12-53 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11297 12-54 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11298 12-55 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11299 12-56 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11300 12-57 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11301 12-58 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11302 12-59 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11303 12-60 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11304 12-61 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11305 12-62 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11306 12-63 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11307 12-64 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11308 12-65 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11309 12-66 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11310 12-67 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11311 12-68 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11312 12-69 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11313 12-70 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11314 12-71 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11315 12-72 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11316 12-73 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11317 12-74 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11318 12-75 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11319 12-76 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11320 12-77 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11321 12-78 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11322 12-79 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11323 12-80 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11324 12-81 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11325 12-82 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11326 12-83 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11327 12-84 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11328 12-85 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11329 12-86 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11330 12-87 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11331 12-88 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11332 12-89 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11333 12-90 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11334 12-91 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11335 12-92 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11336 12-93 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11337 12-94 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11338 12-95 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11339 12-96 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11340 12-97 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11341 12-98 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11342 12-99 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11343 12-100 DO YOU USE OR REFER TO LASER MATERIALS?	1.5	0.0	0.0	0.0	0.0	0.0	0.0

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

FCPT01 PAGE 66

O TASK TITLES

T1280	T3-3 DO YOU CLEAN DVST OR MMST?	306	306	316	316	362	362	362	918
T1281	T3-4 DO YOU ADJUST OR CALIBRATE DVST OR MMST?	51	52	50F	52F	51	53	54	50
T1282	T3-5 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
T1283	T3-6 DO YOU TROUBLESHOOT DVST OR MMST CIRCUITS?	1.5	1.2	.0	.0	.9	.0	.0	6.8
T1284	T3-7 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS?	1.5	.6	.0	.0	.0	.0	.0	4.5
T1285	T3-8 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF DVST?	1.5	1.2	.0	.0	.9	.0	.0	4.5
T1286	T3-9 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MMST?	.0	.0	.0	.0	.0	.0	.9	.0
T1287	T3-10 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF SCT?	.0	.0	.0	.0	.0	.0	.9	2.3
T1288	T3-11 DO YOU PERFORM TASKS ON FLOOD GUNS?	.0	.0	.0	.0	.9	.0	.0	.0
T1289	T3-12 DO YOU PERFORM TASKS ON WRITE GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1290	T3-13 DO YOU PERFORM TASKS ON READ GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1291	T3-14 DO YOU PERFORM TASKS ON ATTACK GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1292	T3-15 DO YOU PERFORM TASKS ON ERASE GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1293	T3-16 DO YOU PERFORM TASKS ON STORAGE GRIDS?	.0	.6	.0	.0	1.9	.0	.0	2.3
T1294	T4-1 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING WITH TELEVISION SYSTEMS INCLUDING LOW LIGHT TELEVISION?	.0	1.2	17.2	6.3	.9	.0	.0	38.6
T1295	T4-2 DO YOU INSPECT TELEVISION SYSTEMS?	.0	1.2	10.3	.0	.9	.0	.0	40.9
T1296	T4-3 DO YOU CLEAN TELEVISION SYSTEMS?	.0	1.2	3.4	.0	.9	.0	.0	38.6
T1297	T4-4 DO YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?	.0	1.2	10.3	.0	.9	.0	.0	36.4
T1298	T4-5 DO YOU GRADE TELEVISION SYSTEMS?	.0	1.2	17.2	6.3	.9	.0	.0	38.6
T1299	T4-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF TV SYSTEMS?	.0	1.2	6.9	.0	.9	.0	.0	40.9
T1300	T4-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF TV SYSTEMS?	.0	1.2	6.9	.0	.9	.0	.0	31.8
T1301	T4-8 DO YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENT PARTS?	.0	1.2	3.4	.0	.9	.0	.0	29.5
T1302	T4-9 DO YOU REMOVE OR REPLACE TV SYSTEM MAJOR ASSEMBLIES?	.0	.6	.0	.0	.9	.0	.0	31.8
T1303	T4-10 DO YOU REMOVE OR REPLACE TV SYSTEM COMPONENT PARTS?	.0	.6	.0	.0	.9	.0	.0	29.5

U COMPUTERS, MICROPROCESSORS, AND PROGRAMMING (U1), DB AND POWER RATIOS (U2)

U1304 U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF YES, CONTINUE.

U1305	U1-2 DO YOU USE OR REFER TO DECIMAL SYSTEMS?	34.8	5.6	20.7	31.3	9.4	.0	2.6	29.5
U1306	U1-3 DO YOU USE OR REFER TO OCTAL SYSTEMS?	21.2	1.9	10.3	6.3	4.7	.0	.0	25.0
U1307	U1-4 DO YOU USE OR REFER TO PARITY DETECTORS/GENERATORS?	14.2	.0	17.2	.0	3.8	.0	.0	22.7
U1308	U1-5 DO YOU USE OR REFER TO HEXADECIMAL SYSTEMS?	28.8	4.3	3.4	.0	3.8	.0	.0	15.9
U1309	U1-6 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS?	13.6	1.2	.0	25.0	3.8	.0	.0	25.0
U1310	U1-7 DO YOU USE OR REFER TO FOUR SYSTEMS?	9.1	.6	6.9	.0	2.8	.0	.0	13.6
U1311	U1-8 DO YOU USE OR REFER TO BINARY SYSTEMS?	34.8	3.7	13.8	12.5	5.7	.0	.0	27.3
U1312	U1-9 DO YOU USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)?	9.1	1.2	.0	.0	2.8	.0	.9	15.9
U1313	U1-10 DO YOU USE OR REFER TO DATA WORDS?	22.7	4.3	6.9	12.5	5.7	.0	.0	15.9

THEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

OCCUPATIONAL ANALYSIS PROGRAM
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O	TSM	TITLES	706 (H)	306 (H)	316 SOF (M)	326 52F (H)	362 (M)	362 51 (M)	362 53 (M)	918 50 (H)
U1314	U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?	16.7	4.3	3.4	12.5	7.5	.0	.0	.0	15.9
U1315	U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?	19.7	3.1	3.4	12.5	6.6	.0	.0	.0	13.6
U1316	U1-13 DO YOU USE OR REFER TO STEERING/INFORMATION?	12.1	2.5	6.9	6.3	2.8	.0	.0	.0	11.4
U1317	U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?	10.6	3.1	6.9	6.3	6.6	.0	.0	.0	15.9
U1318	U1-15 DO YOU USE OR REFER TO OAP-16?	.0	.0	.0	.0	.9	.0	.0	.0	6.8
U1319	U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCDI)?	16.7	1.9	10.3	6.3	2.8	.0	.0	.0	22.7
U1320	U1-17 DO YOU USE OR REFER TO CONTROL WORDS?	9.1	4.3	.0	18.8	4.7	.0	.0	.0	13.6
U1321	U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?	7.6	2.5	.0	25.0	3.8	.0	.0	.0	9.1
U1322	U1-19 DO YOU USE OR REFER TO WRAPAROUND WORDS?	.0	1.2	.0	.0	1.9	.0	.0	.0	5.8
U1323	U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?	18.2	3.1	6.9	25.0	7.5	.0	.0	.0	22.7
U1324	U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?	6.1	.6	3.4	18.8	.9	.0	.0	.0	11.4
U1325	U1-22 DO YOU USE OR REFER TO COMPILERS?	.0	.0	.0	.0	.9	.0	.0	.0	9.1
U1326	U1-23 DO YOU USE OR REFER TO ASSEMBLERS?	.0	.0	.0	.0	.9	.0	.0	.0	9.1
U1327	U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?	4.5	1.2	.0	6.3	4.7	.0	.0	.0	15.9
U1328	U1-25 DO YOU USE OR REFER TO MNEMONICS?	18.2	1.2	.0	6.3	4.7	.0	.0	.0	11.4
U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	13.6	1.2	3.4	.0	5.7	.0	.0	.0	13.6
U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	12.1	3.1	10.3	12.5	4.7	.0	.0	.0	18.2
U1331	U1-28 DO YOU USE OR REFER TO 'ATLAS'?	.0	.0	.0	.0	.9	.0	.0	.0	8.5
U1332	U1-29 DO YOU USE OR REFER TO 'ELAN'?	.0	.0	.0	.0	.9	.0	.0	.0	4.5
U1333	U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?	4.5	.0	.0	.0	1.9	.0	.0	.0	11.4
U1334	U1-31 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING SYSTEMS?	.0	.6	3.4	.0	2.8	.0	.0	.0	.0
U1335	U1-32 DO YOU WRITE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	.0	.0	.0	.0	2.8	.0	.0	.0	.0
U1336	U1-33 DO YOU USE BOOTING FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	13.0	1.9	6.9	25.0	6.6	.0	.0	.0	18.2
U1337	U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER CONTROL SECTIONS?	27.3	2.5	6.9	6.3	4.7	.0	.0	.0	11.4
U1338	U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT SECTIONS?	28.8	3.1	10.3	6.3	7.5	.0	.0	.0	13.6
U1339	U1-36 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT SECTIONS?	30.7	3.1	10.3	6.3	6.6	.0	.0	.0	13.6
U1340	U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR SECTIONS?	25.8	2.5	10.3	6.3	4.7	.0	.0	.0	11.4
U1341	U1-38 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSFER SECTIONS?	30.3	4.7	3.4	6.3	4.7	.0	.0	.0	11.4
U1342	U1-39 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTIONS?	28.8	6.9	1.9	6.3	4.7	.0	.0	.0	11.4
U1343	U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER SERVICE SECTIONS?	30.3	3.7	6.9	6.3	4.7	.0	.0	.0	11.4
U1344	U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE SERVICES?	24.0	1.9	10.3	6.3	4.7	.0	.0	.0	11.4
U1345	U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER DEVICE SECTIONS?	30.7	3.7	6.9	6.3	4.7	.0	.0	.0	11.4
U1346	U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER SECTIONS?	28.8	3.7	6.9	6.3	4.7	.0	.0	.0	11.4
U1347	U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER SPECIAL SECTIONS?	30.7	3.7	6.9	6.3	4.7	.0	.0	.0	11.4

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSK TITLES

306 (M)	306 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
U1348	U1-45	DO YOU USE FORTRAN PROGRAMMING LANGUAGE?	.0	.0	.0	.0	2.3
U1349	U1-46	DO YOU USE COBOL PROGRAMMING LANGUAGE?	.0	.0	.0	.0	4.5
U1350	U1-47	DO YOU USE RPU PROGRAMMING LANGUAGE?	.0	.0	.0	.0	2.3
U1351	U1-48	DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?	6.1	2.5	3.4	4.8	22.7
U1352	U1-49	DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	4.5	1.9	.0	.0	22.7
U1353	U1-50	DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	3.0	1.9	.0	.0	22.7
U1354	U1-51	DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?	3.0	4.3	3.4	.0	29.5
U1355	U1-52	DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?	3.0	3.7	.0	.0	29.5
U1356	U1-53	DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	1.5	.6	.0	.0	22.7
U1357	U1-54	DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	7.6	3.1	3.4	.0	27.3
U1358	U1-55	DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	4.5	1.9	.0	.0	20.5
U1359	U1-56	DO YOU USE BIDIRECTIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	6.1	1.2	.0	.0	20.5
U1360	U1-57	DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	6.1	1.9	.0	.0	22.7
U1361	U2-1	DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION?	15.2	9.9	.0	.0	38.6
U1362	U2-2	DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?	4.5	2.5	.0	.0	11.4
U1363	U2-3	DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS?	3.0	2.5	.0	.0	11.4
U1364	U2-4	DO YOU USE VTVM (DB METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?	21.2	13.7	.0	6.3	31.8
U1365	U2-5	DO YOU USE VTVM (DB METER) TO CHECK OR ADJUST AUDIO AMPLIFIERS?	16.7	6.2	.0	6.3	25.0
U1366	U2-6	DO YOU USE A HP3550 OR 344A TEST SET TO ALIGN AUDIO EQUIPMENT?	7.6	3.1	.0	.0	2.3

SHEPPARD EPI CAREER LADDERS, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMPLEMENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OR PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA: THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE SYS. CRITERIA LISTED IN ATRC 52-22 FOR ABM TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH SYS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMYO, AUTOVON 487-5811.

VECTOR TYPE CODES:

- (1) E R TIME SPENT BY ALL MEMBERS
- (M) E MEMBER PERFORMING
- (F) E TASK FACILE
- (D) E DICHOTOMOUS SET
- (B) E R TIME SPENT BY MEMBERS PERFORMING
- (7) E PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	MEMBERS/ WEEKS	DESCRIPTION	FACTOR
1	M	306 71	72	DAFSC 30671 AIRMEN	3
2	M	306 72	108	DAFSC 30672 AIRMEN	5
3	M	316 72	12	DAFSC 31672F AIRMEN	7
4	M	316 72	6	DAFSC 31672F AIRMEN	8
5	M	362 71	78	DAFSC 36271 AIRMEN	11
6	M	362 73	15	DAFSC 36273 AIRMEN	13
7	M	362 74	20	DAFSC 36274 AIRMEN	14
8	M	918 70	35	DAFSC 91870 AIRMEN	17

SHEPPARD EPI CAREER LADDERS, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OR PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA: THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATR 52-22 FOR ABR TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMVO, AUTOVON 487-5811.

D TSK	TITLES	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
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A MATHEMATICS (A1), DIRECT CURRENT (A2), RESISTANCE AND RESISTIVE CIRCUITS (A3)

A 1	A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?	66.7	55.7	40.9	83.3	60.3	53.3	32.5	92.7
A 2	A1-2 DO YOU USE PUBLICATIONS, SUCH AS TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB?	52.4	30.2	18.2	66.7	37.2	26.7	26.2	60.0
A 3	A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?	35.7	20.8	9.1	66.7	33.3	26.7	11.2	69.1
A 4	A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?	9.5	8.5	.0	33.3	6.4	.0	.0	27.3
A 5	A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $x + 6 = 8$?	28.6	17.0	4.5	50.0	25.6	20.0	7.5	60.0
A 6	A1-6 DO YOU USE LOGARITHM TABLES?	7.1	4.7	.0	.0	7.7	.0	.0	20.0
A 7	A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $x^2 + 4x + 4 = 0$?	11.0	2.8	4.5	.0	6.4	6.7	.0	14.5
A 8	A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?	7.1	6.6	.0	.0	2.6	.0	.0	23.6
A 9	A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?	2.4	3.8	.0	.0	6.4	.0	.0	16.4
A 10	A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS $2 : 3 :: 4 : 10$. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS $2/3 = 4/10$. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS $2 : x :: 4 : 10$ (X IN THIS CASE IS UNKNOWN).	21.4	13.2	13.6	33.3	10.3	13.3	5.0	49.1
A 11	A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?	31.0	19.8	9.1	16.7	12.8	13.3	7.5	52.7
A 12	A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?	88.1	85.8	90.9	100.0	93.6	86.7	82.5	100.0

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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Q TASK	TITLES	306 (M)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
A 13 A2-2	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTROMOTIVE FORCE (EMF)?	31.0	42.5	13.6	33.3	52.6	13.3	23.7	70.9	
A 14 A2-3	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM OHM?	83.3	83.0	86.4	100.0	91.0	80.0	78.7	94.2	
A 15 A2-4	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ION?	9.5	11.3	13.6	83.3	3.8	.0	1.2	69.1	
A 16 A2-5	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM DYNE?	2.4	7.5	.0	33.3	3.8	.0	2.5	25.5	
A 17 A2-6	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?	83.3	82.1	63.6	83.3	84.6	66.7	78.7	100.0	
A 18 A2-7	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM NEUTRON?	14.3	15.1	.0	33.3	15.4	6.7	7.5	56.4	
A 19 A2-8	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM COULOMB?	14.3	11.3	.0	.0	7.7	.0	2.5	45.5	
A 20 A2-9	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM PROTON?	14.3	17.0	.0	33.3	14.1	6.7	7.5	50.9	
A 21 A2-10	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTRON?	54.8	41.5	13.6	83.3	44.9	20.0	16.2	55.5	
A 22 A2-11	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?	85.7	87.7	63.6	100.0	89.7	66.7	81.3	100.0	
A 23 A2-12	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM WATTAGE?	76.2	74.5	63.6	100.0	79.5	60.0	47.5	100.0	
A 24 A2-13	DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?	28.6	37.7	18.2	83.3	57.7	40.0	25.0	83.6	
A 25 A3-1	DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES, CONTINUE.	66.7	59.4	8.1	66.7	64.1	40.0	31.3	51.8	
A 26 A3-2	DO YOU INSPECT RESISTORS?	64.3	53.2	4.5	100.0	57.7	33.3	22.5	98.2	
A 27 A3-3	DO YOU CLEAN RESISTORS?	50.0	43.4	.0	83.3	29.7	40.0	12.5	57.3	
A 28 A3-4	DO YOU ADJUST RESISTORS?	71.4	61.3	4.5	83.3	53.8	73.3	13.7	96.4	

D TASK TITLES

A 29	A3-5 DO YOU MEASURE RESISTORS?	306	306	316	316	362	362	362	918
A 30	A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS OR ANY TASK YOU PERFORM?	71	72	70F	72F	71	73	74	70
A 31	A3-7 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY CARBON?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
A 32	A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED WIRE?	54.8	38.7	4.5	66.7	41.0	53.3	11.2	99.1
A 33	A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	54.8	51.9	9.1	83.3	53.8	73.3	26.2	87.3
A 34	A3-10 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY RHEOSTAT?	38.1	39.6	.0	66.7	30.8	66.7	10.0	90.9
A 35	A3-11 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY POTENTIOMETER?	54.8	57.5	9.1	83.3	57.7	73.3	26.2	94.5
A 36	A3-12 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?	71.4	60.4	9.1	83.3	57.7	80.0	30.0	96.4
A 37	A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE?	26.2	17.9	4.5	66.7	19.2	40.0	3.7	69.1
A 38	A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?	66.7	62.3	9.1	100.0	57.7	66.7	22.5	98.2
A 39	A3-15 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?	66.7	53.8	9.1	83.3	53.8	46.7	13.7	96.4
A 40	A3-16 DO YOU USE OF REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?	26.2	14.2	4.5	66.7	21.8	6.7	5.0	30.9
A 41	A3-17 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	73.8	66.0	13.6	100.0	64.1	80.0	42.5	92.7
A 42	A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	57.1	49.1	13.6	83.3	56.4	40.0	33.7	90.9
A 43	A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	57.1	47.2	13.6	83.3	51.3	40.0	31.3	87.3
		52.4	48.1	13.6	83.3	47.4	46.7	27.5	96.4

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

2000

A +4 43-25 20 YOU ARE A LITTLE POWER DISSIPATION PARAMETERS
FOR YOURS BEST-YOUR-TOOLING

45 43-21 DO YOU USE THE EFFECT OF TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?

A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?

4 47 A 3-23 DO YOU USE OR PREFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?

13-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?

Q 3-5 DO YOU USE OR SELL OR OFFER TO SELL OR SELL RESISTIVE CIRCUITS?
A FOR SERIES PARALLEL

Q. ARE YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?

3: 15-27 DC VOL USE OP REFERS TO TOTAL CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?

Q 3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?

PARALLEL RESISTIVE CIRCUITS?

4-4 4-5-3 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?

1. R_{total} - TOTAL RESISTANCE
 2. R_1 - RESISTANCE OF FIRST RESISTOR
 3. R_2 - RESISTANCE OF SECOND RESISTOR
 4. R_3 - RESISTANCE OF THIRD RESISTOR
 5. R_4 - RESISTANCE OF FOURTH RESISTOR
 6. R_5 - RESISTANCE OF FIFTH RESISTOR
 7. R_6 - RESISTANCE OF SIXTH RESISTOR
 8. R_7 - RESISTANCE OF SEVENTH RESISTOR
 9. R_8 - RESISTANCE OF EIGHTH RESISTOR
 10. R_9 - RESISTANCE OF NINTH RESISTOR
 11. R_{10} - RESISTANCE OF TENTH RESISTOR
 12. R_{11} - RESISTANCE OF ELEVENTH RESISTOR
 13. R_{12} - RESISTANCE OF TWELFTH RESISTOR
 14. R_{13} - RESISTANCE OF THIRTEENTH RESISTOR
 15. R_{14} - RESISTANCE OF FOURTEENTH RESISTOR
 16. R_{15} - RESISTANCE OF FIFTEENTH RESISTOR
 17. R_{16} - RESISTANCE OF SIXTEENTH RESISTOR
 18. R_{17} - RESISTANCE OF SEVENTEENTH RESISTOR
 19. R_{18} - RESISTANCE OF EIGHTEENTH RESISTOR
 20. R_{19} - RESISTANCE OF NINETEENTH RESISTOR
 21. R_{20} - RESISTANCE OF TWENTIETH RESISTOR
 22. R_{21} - RESISTANCE OF TWENTY-FIRST RESISTOR
 23. R_{22} - RESISTANCE OF TWENTY-SECOND RESISTOR
 24. R_{23} - RESISTANCE OF TWENTY-THIRD RESISTOR
 25. R_{24} - RESISTANCE OF TWENTY-FOURTH RESISTOR
 26. R_{25} - RESISTANCE OF TWENTY-FIFTH RESISTOR
 27. R_{26} - RESISTANCE OF TWENTY-SIXTH RESISTOR
 28. R_{27} - RESISTANCE OF TWENTY-SEVENTH RESISTOR
 29. R_{28} - RESISTANCE OF TWENTY-EIGHTH RESISTOR
 30. R_{29} - RESISTANCE OF TWENTY-NINTH RESISTOR
 31. R_{30} - RESISTANCE OF THIRTIETH RESISTOR
 32. R_{31} - RESISTANCE OF THIRTY-FIRST RESISTOR
 33. R_{32} - RESISTANCE OF THIRTY-SECOND RESISTOR
 34. R_{33} - RESISTANCE OF THIRTY-THIRD RESISTOR
 35. R_{34} - RESISTANCE OF THIRTY-FOURTH RESISTOR
 36. R_{35} - RESISTANCE OF THIRTY-FIFTH RESISTOR
 37. R_{36} - RESISTANCE OF THIRTY-SIXTH RESISTOR
 38. R_{37} - RESISTANCE OF THIRTY-SEVENTH RESISTOR
 39. R_{38} - RESISTANCE OF THIRTY-EIGHTH RESISTOR
 40. R_{39} - RESISTANCE OF THIRTY-NINTH RESISTOR
 41. R_{40} - RESISTANCE OF FORTIETH RESISTOR
 42. R_{41} - RESISTANCE OF FORTY-FIRST RESISTOR
 43. R_{42} - RESISTANCE OF FORTY-SECOND RESISTOR
 44. R_{43} - RESISTANCE OF FORTY-THIRD RESISTOR
 45. R_{44} - RESISTANCE OF FORTY-FOURTH RESISTOR
 46. R_{45} - RESISTANCE OF FORTY-FIFTH RESISTOR
 47. R_{46} - RESISTANCE OF FORTY-SIXTH RESISTOR
 48. R_{47} - RESISTANCE OF FORTY-SEVENTH RESISTOR
 49. R_{48} - RESISTANCE OF FORTY-EIGHTH RESISTOR
 50. R_{49} - RESISTANCE OF FORTY-NINTH RESISTOR
 51. R_{50} - RESISTANCE OF FIFTIETH RESISTOR
 52. R_{51} - RESISTANCE OF FIFTY-FIRST RESISTOR
 53. R_{52} - RESISTANCE OF FIFTY-SECOND RESISTOR
 54. R_{53} - RESISTANCE OF FIFTY-THIRD RESISTOR
 55. R_{54} - RESISTANCE OF FIFTY-FOURTH RESISTOR
 56. R_{55} - RESISTANCE OF FIFTY-FIFTH RESISTOR
 57. R_{56} - RESISTANCE OF FIFTY-SIXTH RESISTOR
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 61. R_{60} - RESISTANCE OF SIXTIETH RESISTOR
 62. R_{61} - RESISTANCE OF SIXTY-FIRST RESISTOR
 63. R_{62} - RESISTANCE OF SIXTY-SECOND RESISTOR
 64. R_{63} - RESISTANCE OF SIXTY-THIRD RESISTOR
 65. R_{64} - RESISTANCE OF SIXTY-FOURTH RESISTOR
 66. R_{65} - RESISTANCE OF SIXTY-FIFTH RESISTOR
 67. R_{66} - RESISTANCE OF SIXTY-SIXTH RESISTOR
 68. R_{67} - RESISTANCE OF SIXTY-SEVENTH RESISTOR
 69. R_{68} - RESISTANCE OF SIXTY-EIGHTH RESISTOR
 70. R_{69} - RESISTANCE OF SIXTY-NINTH RESISTOR
 71. R_{70} - RESISTANCE OF SEVENTIETH RESISTOR
 72. R_{71} - RESISTANCE OF SEVENTY-FIRST RESISTOR
 73. R_{72} - RESISTANCE OF SEVENTY-SECOND RESISTOR
 74. R_{73} - RESISTANCE OF SEVENTY-THIRD RESISTOR
 75. R_{74} - RESISTANCE OF SEVENTY-FOURTH RESISTOR
 76. R_{75} - RESISTANCE OF SEVENTY-FIFTH RESISTOR
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 78. R_{77} - RESISTANCE OF SEVENTY-SEVENTH RESISTOR
 79. R_{78} - RESISTANCE OF SEVENTY-EIGHTH RESISTOR
 80. R_{79} - RESISTANCE OF SEVENTY-NINTH RESISTOR
 81. R_{80} - RESISTANCE OF EIGHTIETH RESISTOR
 82. R_{81} - RESISTANCE OF EIGHTY-FIRST RESISTOR
 83. R_{82} - RESISTANCE OF EIGHTY-SECOND RESISTOR
 84. R_{83} - RESISTANCE OF EIGHTY-THIRD RESISTOR
 85. R_{84} - RESISTANCE OF EIGHTY-FOURTH RESISTOR
 86. R_{85} - RESISTANCE OF EIGHTY-FIFTH RESISTOR
 87. R_{86} - RESISTANCE OF EIGHTY-SIXTH RESISTOR
 88. R_{87} - RESISTANCE OF EIGHTY-SEVENTH RESISTOR
 89. R_{88} - RESISTANCE OF EIGHTY-EIGHTH RESISTOR
 90. R_{89} - RESISTANCE OF EIGHTY-NINTH RESISTOR
 91. R_{90} - RESISTANCE OF NINETYETH RESISTOR
 92. R_{91} - RESISTANCE OF NINETY-FIRST RESISTOR
 93. R_{92} - RESISTANCE OF NINETY-SECOND RESISTOR
 94. R_{93} - RESISTANCE OF NINETY-THIRD RESISTOR
 95. R_{94} - RESISTANCE OF NINETY-FOURTH RESISTOR
 96. R_{95} - RESISTANCE OF NINETY-FIFTH RESISTOR
 97. R_{96} - RESISTANCE OF NINETY-SIXTH RESISTOR
 98. R_{97} - RESISTANCE OF NINETY-SEVENTH RESISTOR
 99. R_{98} - RESISTANCE OF NINETY-EIGHTH RESISTOR
 100. R_{99} - RESISTANCE OF NINETY-NINTH RESISTOR
 101. R_{100} - RESISTANCE OF HUNDRETH RESISTOR
 102. R_{101} - RESISTANCE OF HUNDRED-FIRST RESISTOR
 103. R_{102} - RESISTANCE OF HUNDRED-SECOND RESISTOR
 104. R_{103} - RESISTANCE OF HUNDRED-THIRD RESISTOR
 105. R_{104} - RESISTANCE OF HUNDRED-FOURTH RESISTOR
 106. R_{105} - RESISTANCE OF HUNDRED-FIFTH RESISTOR
 107. R_{106} - RESISTANCE OF HUNDRED-SIXTH RESISTOR
 108. R_{107} - RESISTANCE OF HUNDRED-SEVENTH RESISTOR
 109. R_{108} - RESISTANCE OF HUNDRED-EIGHTH RESISTOR
 110. R_{109} - RESISTANCE OF HUNDRED-NINTH RESISTOR
 111. R_{110} - RESISTANCE OF ONE HUNDRED-TENTH RESISTOR
 112. R_{111} - RESISTANCE OF ONE HUNDRED-ELEVENTH RESISTOR
 113. R_{112} - RESISTANCE OF ONE HUNDRED-TWELFTH RESISTOR
 114. R_{113} - RESISTANCE OF ONE HUNDRED-THIRTEENTH RESISTOR
 115. R_{114} - RESISTANCE OF ONE HUNDRED-FOURTEENTH RESISTOR
 116. R_{115} - RESISTANCE OF ONE HUNDRED-FIFTEENTH RESISTOR
 117. R_{116} - RESISTANCE OF ONE HUNDRED-SIXTEENTH RESISTOR
 118. R_{117} - RESISTANCE OF ONE HUNDRED-SEVENTEENTH RESISTOR
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 121. R_{120} - RESISTANCE OF ONE HUNDRED-TWENTIETH RESISTOR
 122. R_{121} - RESISTANCE OF ONE HUNDRED-TWENTY-FIRST RESISTOR
 123. R_{122} - RESISTANCE OF ONE HUNDRED-TWENTY-SECOND RESISTOR
 124. R_{123} - RESISTANCE OF ONE HUNDRED-TWENTY-THIRD RESISTOR
 125. R_{124} - RESISTANCE OF ONE HUNDRED-TWENTY-FOURTH RESISTOR
 126. R_{125} - RESISTANCE OF ONE HUNDRED-TWENTY-FIFTH RESISTOR
 127. R_{126} - RESISTANCE OF ONE HUNDRED-TWENTY-SIXTH RESISTOR
 128. R_{127} - RESISTANCE OF ONE HUNDRED-TWENTY-SEVENTH RESISTOR
 129. R_{128} - RESISTANCE OF ONE HUNDRED-TWENTY-EIGHTH RESISTOR
 130. R_{129} - RESISTANCE OF ONE HUNDRED-TWENTY-NINTH RESISTOR
 131. R_{130} - RESISTANCE OF ONE HUNDRED-THIRTIETH RESISTOR
 132. <

RESISTIVE CIRCUITS?
 IN 13-19 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES

RESISTIVE, LINEAR
RESISTIVE, LINEAR
RESISTIVE, LINEAR
PARTICLE RESISTIVE, OR CAPACITIVE

FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR INDIVIDUAL VOLTAGE DROP FORMULAS

CHARLES F. JOHNSON

706	716	726	736	746	756
(M)	(M)	(M)	(M)	(M)	(M)
72	70F	72F	71	73	74
(M)	(M)	(M)	(M)	(M)	(M)
306	316	326	336	346	356
(M)	(M)	(M)	(M)	(M)	(M)
71	70F	72F	71	73	74
(M)	(M)	(M)	(M)	(M)	(M)
706	716	726	736	746	756
(M)	(M)	(M)	(M)	(M)	(M)

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

	62.4	47.2	13.6	83.3	46.2	40.0	28.7	29.1
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Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
1950	12.6	45.2	13.6	33.3	39.7	26.7	22.5	22.5	22.5	22.5

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																																																																																																												
Population	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.2	18.4	18.6	18.8	19.0	19.2	19.4	19.6	19.8	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8	24.0	24.2	24.4	24.6	24.8	25.0	25.2	25.4	25.6	25.8	26.0	26.2	26.4	26.6	26.8	27.0	27.2	27.4	27.6	27.8	28.0	28.2	28.4	28.6	28.8	29.0	29.2	29.4	29.6	29.8	30.0	30.2	30.4	30.6	30.8	31.0	31.2	31.4	31.6	31.8	32.0	32.2	32.4	32.6	32.8	33.0	33.2	33.4	33.6	33.8	34.0	34.2	34.4	34.6	34.8	35.0	35.2	35.4	35.6	35.8	36.0	36.2	36.4	36.6	36.8	37.0	37.2	37.4	37.6	37.8	38.0	38.2	38.4	38.6	38.8	39.0	39.2	39.4	39.6	39.8	40.0	40.2	40.4	40.6	40.8	41.0	41.2	41.4	41.6	41.8	42.0	42.2	42.4	42.6	42.8	43.0	43.2	43.4	43.6	43.8	44.0	44.2	44.4	44.6	44.8	45.0	45.2	45.4	45.6	45.8	46.0	46.2	46.4	46.6	46.8	47.0	47.2	47.4	47.6	47.8	48.0	48.2	48.4	48.6	48.8	49.0	49.2	49.4	49.6	49.8	50.0	50.2	50.4	50.6	50.8	51.0	51.2	51.4	51.6	51.8	52.0	52.2	52.4	52.6	52.8	53.0	53.2	53.4	53.6	53.8	54.0	54.2	54.4	54.6	54.8	55.0	55.2	55.4	55.6	55.8	56.0	56.2	56.4	56.6	56.8	57.0	57.2	57.4	57.6	57.8	58.0	58.2	58.4	58.6	58.8	59.0	59.2	59.4	59.6	59.8	60.0	60.2	60.4	60.6	60.8	61.0	61.2	61.4	61.6	61.8	62.0	62.2	62.4	62.6	62.8	63.0	63.2	63.4	63.6	63.8	64.0	64.2	64.4	64.6	64.8

[illegible]

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																																																																																																
Population	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7

[illegible][illegible][illegible]

7.6 64.0

O TSM TITLES

A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?

A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

B METERS/MULTIMETERS (R1), ALTERNATING CURRENT (AC) (B2),
INDUCTORS AND INDUCTIVE REACTANCE (B3)

B 60 B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?	78.6	73.6	68.2	100.0	82.1	73.3	62.5	98.2
B 61 B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?	78.6	74.5	77.3	100.0	82.1	73.3	70.0	96.4
B 62 B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?	57.1	67.9	50.0	83.3	70.5	40.0	47.5	92.7
B 63 B1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE POWER?	31.0	27.4	40.9	50.0	41.0	20.0	31.3	70.9
B 64 B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?	69.0	39.6	36.4	83.3	67.9	53.3	16.2	92.7
B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?	26.2	3.8	50.0	83.3	30.8	6.7	2.5	81.8
B 66 B1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE PRESSURE?	23.8	5.7	54.5	83.3	23.1	.0	3.7	72.7
B 67 B1-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE LIGHT LEVELS?	11.9	.9	4.5	33.3	5.1	.0	1.2	58.2
B 68 B2-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?	64.3	47.2	9.1	66.7	35.9	66.7	13.7	89.1

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (AICJ) RANDOLPH AFB TX

FCPT02 PAGE 76

D	TSK	TITLES	306 (M)	306 (M)	316 72 (M)	316 70F (M)	362 71 (M)	362 71 (M)	362 73 (K)	362 74 (M)	918 70 (M)
B	87	B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE?	.0	7.5	.0	.0	11.5	.0	3.7	21.8	
B	88	B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?	2.4	9.4	.0	.0	9.0	.0	2.5	20.0	
B	89	B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL?	2.4	7.5	.0	.0	11.5	.0	2.5	16.4	
B	90	B3-16 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	7.1	11.3	.0	33.3	10.3	.0	2.5	27.3	
B	91	B3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?	16.7	15.1	.0	50.0	20.5	.0	3.7	49.1	
B	92	B3-18 DO YOU CALCULATE INDUCTIVE REACTANCE?	4.8	10.4	.0	16.7	11.5	.0	2.5	25.5	
B	93	B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?	16.7	11.3	.0	16.7	15.4	.0	2.5	38.2	
B	94	B3-20 DO YOU WORK WITH POWER INDUCTORS?	40.5	20.8	.0	33.3	16.7	13.3	3.7	52.7	
B	95	B3-21 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?	28.6	8.5	.0	16.7	20.5	20.0	7.5	49.1	
B	96	B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?	28.6	9.4	.0	16.7	5.1	6.7	1.2	49.1	

C CAPACITORS AND CAPACITIVE REACTANCE (C1), TRANSFORMERS (C2),
MAGNETISM (C3)

C	97	C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1; IF YES, CONTINUE.	73.8	60.4	22.7	100.0	65.4	66.7	36.2	94.5
C	98	C1-2 DO YOU INSPECT CAPACITORS?	61.0	53.8	9.1	100.0	56.4	73.3	21.2	96.4
C	99	C1-3 DO YOU CLEAN CAPACITORS?	45.2	39.6	.0	83.3	38.5	46.7	8.7	63.6

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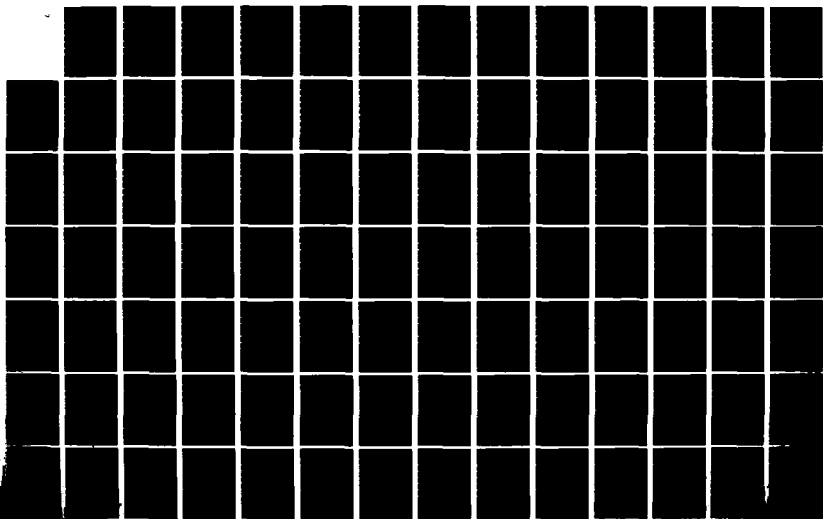
ELECTRONIC PRINCIPLES INVENTORY SHEPPARD TECHNICAL
TRAINING CENTER AFPT 90-EPI-485(U) AIR FORCE

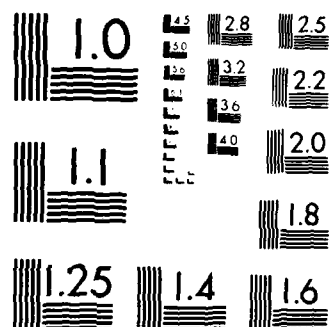
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OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX JUN 84
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

D TSK	TITLES	306 (M)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 /0 (M)
C 100	CI-4 DO YOU ADJUST CAPACITORS?	26.2	18.9	.0	66.7	12.6	13.3	1.2	87.6
C 101	CI-5 DO YOU TEST CAPACITORS?	54.8	52.8	.0	66.7	55.1	66.7	18.8	87.1
C 102	CI-6 DO YOU DISCHARGE CAPACITORS?	69.0	52.8	4.5	66.7	50.0	66.7	20.0	94.5
C 103	CI-7 DO YOU MEASURE CAPACITORS?	33.3	48.1	9.1	66.7	38.5	26.7	12.5	74.5
C 104	CI-8 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?	4.8	8.5	.0	66.7	20.5	.0	1.2	29.1
C 105	CI-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC?	2.4	4.7	.0	16.7	9.0	.0	.0	5.5
C 106	CI-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS?	64.3	52.8	.0	100.0	52.6	40.0	17.5	83.6
C 107	CI-11 DO YOU USE OR REFER TO CAPACITANCE?	64.3	49.1	4.5	100.0	55.1	46.7	27.5	87.3
C 108	CI-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?	7.1	11.3	.0	33.3	12.8	.0	2.5	23.6
C 109	CI-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS?	57.1	42.5	9.1	83.3	39.7	60.0	16.2	89.1
C 110	CI-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?	28.6	20.8	.0	83.3	29.5	6.7	6.3	52.7
C 111	CI-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?	28.6	13.2	.0	66.7	26.9	6.7	6.3	36.4
C 112	CI-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?	78.6	63.2	9.1	100.0	55.4	73.3	28.7	96.4
C 113	CI-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?	78.6	58.5	9.1	100.0	39.7	53.3	28.7	96.4
C 114	CI-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?	64.3	52.8	13.6	100.0	43.6	60.0	26.2	96.4
C 115	CI-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	16.7	8.5	.0	33.3	17.9	.0	6.3	30.9
C 116	CI-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT?	7.1	10.4	.0	33.3	14.1	.0	2.5	25.5
C 117	CI-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?	4.8	6.6	.0	16.7	10.3	.0	1.2	20.0
C 118	CI-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?	33.3	34.0	9.1	50.0	28.2	26.7	16.2	63.6

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Q TASK TITLES

C 141	C2-16	DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?	306	306	316	316	362	362	362	918
C 142	C2-17	DO YOU WORK WITH SENSING TRANSFORMERS?	71	72	70F	72F	71	73	74	70
C 143	C2-16	DO YOU WORK WITH CONTROL TRANSFORMERS?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
C 144	C2-19	DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	7.1	1.9	.0	33.3	10.3	.0	.0	40.0
C 145	C2-20	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	4.8	2.8	4.5	33.3	6.4	.0	.0	43.6
C 146	C2-21	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	11.0	7.5	9.1	50.0	11.5	.0	.0	63.6
C 147	C2-22	DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	50.5	47.2	4.5	100.0	30.8	46.7	10.0	81.8
C 148	C2-23	DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	54.8	45.3	4.5	100.0	28.2	33.3	10.0	76.4
C 149	C2-24	DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?	52.4	43.4	13.6	100.0	25.6	46.7	6.3	87.3
C 150	C2-25	DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	11.0	22.6	.0	33.3	16.7	26.7	2.5	47.3
C 151	C2-26	DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	21.4	35.8	4.5	50.0	21.6	20.0	3.7	76.4
C 152	C2-27	DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	73.8	50.0	22.7	100.0	35.9	46.7	17.5	89.1
C 153	C2-28	DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	69.0	45.3	9.1	100.0	26.9	46.7	8.7	85.5
C 154	C2-29	DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	69.0	45.3	9.1	100.0	30.8	33.3	10.0	85.5
C 155	C2-30	DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?	73.8	50.0	4.5	100.0	32.1	46.7	12.5	89.1
C 156	C2-31	DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	38.1	19.8	4.5	66.7	20.5	20.0	10.0	65.5
			52.4	26.4	4.5	83.3	23.1	33.3	10.0	76.4
			23.8	28.3	4.5	100.0	23.1	26.7	6.3	78.2
			61.9	34.9	4.5	100.0	26.9	20.0	8.7	76.4

D TSK	TITLES	306	306	316	316	362	362	362	918
		71	72	70F	72F	71	73	74	70
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
C 157	C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?	28.6	17.0	9.1	50.0	15.4	6.7	3.7	65.5
C 158	C2-33 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH?	31.0	14.2	.0	66.7	15.4	13.3	6.3	30.9
C 159	C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	14.3	16.0	.0	33.3	14.1	6.7	2.5	54.5
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	28.6	30.2	4.5	66.7	24.4	33.3	7.5	74.5
C 161	C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	9.5	11.3	.0	.0	9.0	13.3	1.2	41.8
C 162	C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	9.5	8.5	.0	.0	3.8	.0	1.2	29.1
C 163	C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?	19.0	7.5	18.2	100.0	14.1	.0	1.2	78.2
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	16.7	4.7	13.6	66.7	14.1	.0	.0	72.7
C 165	C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?	14.3	4.7	.0	33.3	6.4	.0	.0	43.6
C 166	C2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?	7.1	3.8	4.5	16.7	7.7	6.7	.0	36.4
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	19.0	4.7	18.2	100.0	12.8	6.7	.0	67.3
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	31.0	37.7	4.5	50.0	28.2	6.7	27.5	61.8
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	33.3	33.0	4.5	33.3	38.5	6.7	7.5	45.5
C 170	C3-3 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS?	7.1	14.2	.0	.0	20.5	.0	2.5	25.5
C 171	C3-4 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	9.5	12.3	.0	.0	19.2	.0	2.5	23.6
C 172	C3-5 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	11.9	12.3	.0	16.7	15.4	.0	2.5	29.1
C 173	C3-6 DO YOU USE OR REFER TO RESIDUAL MAGNETISM?	19.0	27.4	.0	.0	61.5	13.3	1.2	29.1
C 174	C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?	26.2	24.5	9.1	16.7	29.2	.0	12.5	40.0

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D TSK TITLES

C 175 C3-8 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?
C 176 C3-9 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?
C 177 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION?
C 178 C3-11 DO YOU USE OR REFER TO FLUX DENSITY?
C 179 C3-12 DO YOU USE OR REFER TO SATURABLE REACTANCE?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)

D RCL CIRCUITS (D1), TIME CONSTANTS (D2), FILTERS (D3)

D 180 D1-1 DO YOU WORK WITH RC, LP, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.
D 181 D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?
D 182 D1-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?
D 183 D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?
D 184 D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?
D 185 D1-6 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS?
D 186 D1-7 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?
D 187 D1-8 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?
D 188 D1-9 DO YOU USE OR REFER TO MAXIMUM POWER (P SUB M) WHEN WORKING WITH RCL CIRCUITS?
D 189 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (P SUB AVE) WHEN WORKING WITH RCL CIRCUITS?

47.6	17.0	4.5	33.3	17.9	6.7	6.3	67.3
9.5	6.6	.0	.0	2.6	.0	.0	25.5
9.5	7.5	.0	.0	2.6	.0	.0	16.4
9.5	5.7	.0	.0	5.1	13.3	.0	14.5
11.0	4.7	.0	.0	3.8	13.3	.0	12.7
11.9	5.7	.0	.0	3.8	6.7	.0	12.7
19.0	7.5	.0	.0	16.7	6.7	7.7	56.4
7.1	8.5	.0	16.7	6.4	6.7	1.2	32.7
9.5	7.5	.0	16.7	5.1	6.7	1.2	32.7
11.9	6.6	.0	16.7	7.7	.0	1.2	30.9

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D TSK TITLES

D 190	D1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?	306	306	316	316	362	362	362	918
		71	72	70F	71	73	74		70
		(M)	(M)	(M)	(M)	(M)	(M)		(M)
D 191	D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?	9.5	7.5	.0	16.7	5.1	.0	1.2	27.3
D 192	D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	21.4	7.5	.0	16.7	10.3	6.7	1.2	49.1
D 193	D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?	21.4	8.5	.0	16.7	7.7	6.7	1.2	47.3
D 194	D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS?	16.7	8.5	.0	16.7	7.7	6.7	.0	38.2
D 195	D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?	16.7	8.5	.0	16.7	7.7	6.7	.0	54.5
D 196	D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?	4.8	5.7	.0	16.7	2.6	6.7	.0	27.3
D 197	D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?	21.4	6.6	.0	16.7	6.4	.0	.0	38.2
D 198	D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?	9.5	5.7	.0	.0	5.1	.0	.0	23.6
D 199	D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	33.3	11.3	.0	16.7	7.7	6.7	1.2	50.9
D 200	D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS USING FORMULAS SUCH AS: SINE OF AND ANGLE = OPPOSITE SIDE/HYPOTENUSE?	9.5	3.8	.0	.0	2.6	.0	1.2	10.9
D 201	D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?	11.9	5.7	.0	.0	5.1	.0	.0	18.2
D 202	D1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?	16.7	7.5	.0	16.7	9.0	6.7	2.5	21.8
D 203	D1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?	11.9	5.7	.0	16.7	3.8	.0	2.5	21.8
D 204	D1-25 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?	14.3	7.5	.0	16.7	7.7	.0	1.2	23.6

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D TSK TITLES

D 205	D1-26	DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS?	7.1	5.7	.0	.0	2.6	.0	.0	.0	14.5
D 206	D1-27	DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR SERIES RCL CIRCUITS?	7.1	6.6	.0	.0	3.8	.0	.0	.0	21.8
D 207	D1-28	DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR SERIES RCL CIRCUITS?	7.1	7.5	.0	.0	5.1	6.7	.0	.0	27.3
D 208	D1-29	DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES RCL CIRCUITS?	7.1	6.6	.0	.0	5.1	.0	.0	1.2	21.8
D 209	D1-30	DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL CIRCUITS?	16.7	8.5	.0	33.3	9.0	6.7	1.2	30.9	
D 210	D1-31	DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS?	7.1	6.6	.0	16.7	1.3	.0	1.2	12.7	
D 211	D1-32	DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?	14.3	2.8	.0	16.7	.0	6.7	1.2	16.4	
D 212	D1-33	DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?	16.7	7.5	.0	33.3	14.1	6.7	1.2	32.7	
D 213	D1-34	DO YOU CHECK CAPACITORS USING OHMMETERS?	45.2	18.9	.0	50.0	16.7	13.3	5.0	67.3	
D 214	D1-35	DO YOU CHECK CAPACITORS USING SUBSTITUTION?	23.8	6.6	.0	16.7	10.3	6.7	1.2	52.7	
D 215	D1-36	DO YOU CHECK INDUCTORS USING OHMMETERS?	40.5	17.9	.0	50.0	15.4	13.3	2.5	58.2	
D 216	D1-37	DO YOU CHECK INDUCTORS USING SUBSTITUTION?	23.8	6.6	.0	16.7	10.3	.0	1.2	43.6	
D 217	D1-38	DO YOU CHECK RESISTORS USING OHMMETERS?	42.9	20.8	.0	66.7	16.7	13.3	5.0	69.1	
D 218	D1-39	DO YOU CHECK RESISTORS USING SUBSTITUTION?	23.8	7.5	.0	16.7	10.3	6.7	1.2	49.1	
D 219	D1-40	DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE (THETA) = 0, POWER FACTOR (PF) = 1, AND APPARENT POWER (P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?	2.4	5.7	.0	.0	1.3	.0	1.2	14.5	
D 220	D1-41	DO YOU USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS?	14.3	8.5	.0	.0	6.4	20.0	1.2	40.0	
D 221	D1-42	DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS?	14.3	5.7	.0	.0	7.7	.0	1.2	27.3	

D TSK TITLES

D 222	D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS?	14.3	7.5	.0	.0	6.4	.0	1.2	23.6
D 223	D1-44 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 OF THE PEAK CURRENT VALUE?	7.1	3.8	.0	.0	5.1	.0	1.2	30.9
D 224	D1-45 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL (Q)?	9.5	4.7	.0	.0	3.8	.0	2.5	14.5
D 225	D1-46 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS?	14.3	5.7	.0	.0	2.6	.0	1.2	25.5
D 226	D2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS? IF NO, GO TO ITEM D3-1; IF YES, CONTINUE.	26.2	7.5	4.5	.0	2.6	.0	.0	38.2
D 227	D2-2 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)?	21.4	6.6	.0	16.7	2.6	.0	.0	25.5
D 228	D2-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?	9.5	5.7	.0	.0	2.6	.0	.0	12.7
D 229	D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS?	9.5	7.5	.0	16.7	1.3	.0	.0	18.2
D 230	D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS?	7.1	6.6	.0	16.7	2.6	6.7	.0	14.5
D 231	D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES?	4.8	4.7	.0	16.7	1.3	.0	.0	18.2
D 232	D2-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS?	7.1	5.7	.0	16.7	1.3	.0	.0	16.4

D TSM

TITLES

D 233 D3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.
D 234 D3-2 DO YOU INSPECT FILTER CIRCUITS?
D 235 D3-3 DO YOU CLEAN FILTER CIRCUITS?
D 236 D3-4 DO YOU ALIGN OR ADJUST FILTER CIRCUITS?
D 237 D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?
D 238 D3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?
D 239 D3-7 DO YOU WORK WITH LOW PASS FILTERS?
D 240 D3-8 DO YOU WORK WITH HIGH PASS FILTERS?
D 241 D3-9 DO YOU WORK WITH BANDPASS FILTERS?
D 242 D3-10 DO YOU WORK WITH BAND-REJECT FILTERS?
D 243 D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?
D 244 D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?
D 245 D3-13 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?
D 246 D3-14 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?
D 247 D3-15 DO YOU WORK WITH YTTRIUM IRON GARNET (YIG) FILTERS?
D 248 D3-16 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS?

E COUPLING (E1), SOLDERING OR SOLDERLESS CONNECTIONS(E2),
RELAYS (E3)

E 249 E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.

706 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
71 (M)	72 (M)	70F (M)	72F (M)	71 (M)	73 (M)	74 (M)	70 (M)
64.3	27.4	9.1	50.0	17.9	60.0	13.7	65.5
52.4	24.5	.0	50.0	11.5	53.3	7.5	63.6
47.6	16.0	.0	33.3	10.3	33.3	3.7	36.4
21.4	10.4	.0	33.3	10.3	13.3	2.5	54.5
47.6	21.7	4.5	50.0	12.8	40.0	6.3	60.0
45.1	19.8	.0	50.0	9.0	33.3	3.7	61.8
52.4	15.1	.0	50.0	11.5	46.7	3.7	63.6
45.2	9.4	.0	50.0	11.5	46.7	1.2	63.6
38.1	9.4	.0	16.7	10.3	13.3	3.7	58.2
28.6	4.7	.0	16.7	6.4	.0	1.2	40.0
14.3	6.6	4.5	16.7	3.8	6.7	6.3	20.0
42.9	12.3	4.5	16.7	7.7	.0	2.5	47.3
42.9	10.4	.0	16.7	7.7	13.3	1.2	43.6
40.5	11.3	.0	16.7	6.4	6.7	2.5	49.1
7.1	.0	.0	.0	.0	6.7	.0	.0
7.1	1.9	.0	.0	2.6	.0	1.2	9.1

52.4	21.7	9.1	16.7	14.1	26.7	7.5	69.1
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D TSV TITLES

E 250 E1-2 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING?
E 251 E1-3 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING (MATCHING)?
E 252 E1-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH OPTICAL COUPLING?
E 253 E1-5 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING?
E 254 E1-6 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING?
E 255 E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING?
E 256 E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING?
E 257 E1-9 DO YOU WORK WITH DIRECT COUPLED CIRCUITS?
E 258 E1-10 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS?
E 259 E1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?
E 260 E1-12 DO YOU WORK WITH OPTICAL COUPLING?
E 261 E1-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?
E 262 E1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?
E 263 E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.
E 264 E2-2 DO YOU SOLDER CONNECTIONS?
E 265 E2-3 DO YOU DESOLDER CONNECTIONS?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
45.2	17.9	4.5	33.3	11.5	6.7	3.7	78.2
38.1	15.1	4.5	16.7	12.8	26.7	7.5	69.1
19.0	11.3	.0	16.7	1.3	.0	.0	60.0
35.7	16.0	.0	33.3	14.1	13.3	6.3	74.5
42.9	13.2	4.5	16.7	11.5	13.3	3.7	78.2
38.1	10.4	4.5	16.7	14.1	33.3	7.5	69.1
31.0	11.3	.0	33.3	14.1	13.3	7.5	74.5
42.9	19.8	.0	33.3	15.4	13.3	3.7	78.2
42.9	17.9	4.5	33.3	11.5	6.7	2.5	76.4
28.6	12.3	4.5	.0	12.8	6.7	2.5	70.9
16.7	9.4	.0	.0	1.3	.0	.0	60.0
16.7	9.4	.0	.0	1.3	.0	.0	61.8
31.0	16.0	.0	33.3	14.1	13.3	6.3	74.5
66.7	58.5	18.2	83.3	74.4	66.7	47.5	90.9
66.7	61.3	4.5	83.3	79.5	66.7	56.3	92.7
66.7	60.4	4.5	83.3	79.5	66.7	56.3	92.7

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D TASK TITLES

E 266 E2-4 DO YOU PERFORM HIGH RELIABILITY SOLDERING?	306	306	316	316	362	362	362	918
E 267 E2-5 DO YOU INSPECT SOLDERED CONNECTIONS?	71	72	70F	72F	71	73	74	70
E 268 E2-6 DO YOU CLEAN OR TIN CONNECTIONS?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
E 269 E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?	64.3	48.1	.0	66.7	53.8	26.7	22.5	70.9
E 270 E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?	66.7	60.4	4.5	83.3	78.2	66.7	55.0	92.7
E 271 E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?	66.7	61.3	4.5	83.3	76.9	66.7	47.5	92.7
E 272 E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?	64.3	59.4	9.1	83.3	75.6	60.0	56.3	90.9
E 273 E2-11 DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?	64.3	55.7	9.1	83.3	52.6	60.0	17.5	92.7
E 274 E2-12 DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?	64.3	59.4	4.5	83.3	66.7	66.7	17.5	92.7
E 275 E2-13 DO YOU PERFORM CRIMPING IN LIEU OF SOLDERING?	64.3	58.5	4.5	83.3	55.1	53.3	12.5	92.7
E 276 E2-14 DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF SOLDERING?	64.3	41.5	4.5	33.3	32.1	6.7	7.5	89.1
E 277 E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1: IF YES, CONTINUE.	57.1	19.8	4.5	33.3	75.6	33.3	53.7	40.0
E 278 E3-2 DO YOU ADJUST RELAYS?	57.1	39.6	9.1	83.3	38.5	20.0	38.7	74.5
E 279 E3-3 DO YOU CLEAN RELAYS?	16.7	7.5	.0	.0	41.0	6.7	58.7	14.5
E 280 E3-4 DO YOU INSPECT RELAYS?	59.5	38.7	45.5	100.0	78.2	80.0	55.0	92.7
E 281 E3-5 DO YOU TROUBLESHOOT RELAYS?	26.2	22.6	4.5	66.7	76.9	66.7	47.5	78.2
E 282 E3-6 DO YOU MONITOR BIAS OUTPUT ON RELAYS?	45.2	31.1	4.5	83.3	76.9	73.3	58.7	89.1
E 283 E3-7 DO YOU REMOVE OR REPLACE RELAYS?	52.4	34.9	18.2	100.0	75.6	73.3	60.0	96.4
E 284 E3-8 DO YOU PERFORM TASKS ON COILS OF RELAYS?	52.4	33.0	45.5	100.0	76.9	66.7	61.2	94.5
E 285 E3-9 DO YOU PERFORM TASKS ON CONTACTS OF RELAYS?	14.3	14.2	9.1	50.0	26.9	20.0	12.5	27.3
E 286 E3-10 DO YOU PERFORM TASKS ON COILS OF RELAYS?	54.8	37.7	9.1	83.3	71.8	73.3	48.7	94.5
E 287 E3-11 DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?	50.0	28.3	13.6	100.0	76.9	73.3	52.5	92.7
E 288 E3-12 DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?	7.1	16.0	4.5	16.7	56.4	33.3	10.0	52.7
E 289 E3-13 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	19.0	17.9	4.5	16.7	65.4	33.3	11.2	72.7
	33.3	31.1	4.5	50.0	75.6	53.3	26.2	63.6
	31.0	28.3	4.5	50.0	78.2	46.7	38.7	83.6
	54.8	33.0	40.9	100.0	59.0	60.0	48.7	94.5

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O TSK TITLES

E 290 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?
 E 291 E3-15 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?
 E 292 E3-16 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?
 E 293 E3-17 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?
 E 294 E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?

306 71 (M)	306 72 (M)	316 72F (M)	316 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
54.8	33.0	40.9	100.0	59.0	60.0	46.7
52.4	28.3	36.4	100.0	55.1	53.3	45.0
52.4	26.4	36.4	100.0	53.8	53.3	42.5
57.1	28.3	36.4	81.3	67.9	40.0	45.0
50.0	37.7	9.1	100.0	70.5	53.3	36.2
						87.3

F MICROPHONES AND SENSING DEVICES (F1), SPEAKERS (F2),
OSCILLOSCOPES (F3)

F 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.

F 296 F1-2 DO YOU INSPECT MICROPHONES?
 F 297 F1-3 DO YOU CLEAN MICROPHONES?
 F 298 F1-4 DO YOU OPERATE MICROPHONES?
 F 299 F1-5 DO YOU TROUBLESHOOT MICROPHONE WIRE CONNECTIONS?
 F 300 F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

7.1	5.7	45.5	33.3	19.2	66.7	11.2	61.8
2.4	3.8	18.2	.0	12.8	66.7	6.3	38.2
.0	1.9	13.6	.0	11.5	40.0	3.7	30.9
4.8	1.9	45.5	.0	14.1	53.3	10.0	32.7
2.4	2.8	4.5	.0	15.4	53.3	7.5	38.2
.0	2.8	4.5	.0	9.0	26.7	1.2	32.7

F 301 F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?
 F 302 F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?
 F 303 F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?
 F 304 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?
 F 305 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?
 F 306 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?
 F 307 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?

2.4	1.9	13.6	.0	16.7	53.3	8.7	40.0
.0	2.8	.0	.0	9.0	26.7	2.5	29.1
4.8	2.8	18.2	.0	14.1	60.0	10.0	23.6
.0	2.8	4.5	.0	5.1	13.3	2.5	16.4
2.4	1.9	9.1	.0	5.1	.0	2.5	25.5
4.8	1.9	18.2	.0	7.7	20.0	5.0	21.8
.0	1.9	4.5	.0	2.6	.0	.0	3.6

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D TSK TITLES

F 308 F1-14 DO YOU PERFORM TASKS ON TRANSUCERS?
F 309 F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.
F 310 F2-2 DO YOU INSPECT SPEAKERS?
F 311 F2-3 DO YOU CLEAN SPEAKERS?
F 312 F2-4 DO YOU OPERATE SPEAKERS?
F 313 F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?
F 314 F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?
F 315 F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?
F 316 F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?
F 317 F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?
F 318 F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?
F 319 F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?
F 320 F2-12 DO YOU PERFORM ANY TASKS ON VOICE COIL SPEAKER PARTS?
F 321 F2-13 DO YOU PERFORM ANY TASKS ON PERMANENT MAGNET SPEAKER PARTS?
F 322 F2-14 DO YOU PERFORM ANY TASKS ON ELECTROMAGNET SPEAKER PARTS?
F 323 F2-15 DO YOU PERFORM ANY TASKS ON SOFT IRON CORE SPEAKER PARTS?
F 324 F3-1 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G1-1; IF YES, CONTINUE.
F 325 F3-2 DO YOU PERFORM OPERATIONAL CHECKS USING OSCILLOSCOPES?
F 326 F3-3 DO YOU PERFORM ALIGNMENTS OR ADJUSTMENTS USING OSCILLOSCOPES?
F 327 F3-4 DO YOU TROUBLESHOOT ELECTRONIC CIRCUITS USING OSCILLOSCOPES?
F 328 F3-5 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCIES?
F 329 F3-6 DO YOU USE OSCILLOSCOPES TO MEASURE TIME?

306	306	316	316	362	362	362	918
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
2.4	7.5	9.1	33.3	5.1	6.7	2.5	53.6
21.4	7.5	37.4	16.7	20.5	60.0	33.7	61.0
21.4	4.7	18.7	16.7	16.7	53.3	32.5	65.5
16.7	2.8	9.1	16.7	15.4	46.7	21.2	50.9
21.4	3.8	45.5	16.7	17.9	40.0	28.7	58.2
16.7	3.8	13.6	16.7	17.9	53.3	32.5	67.3
4.8	1.9	13.6	.0	11.5	40.0	13.7	50.9
19.0	3.8	.0	16.7	16.7	46.7	32.5	67.3
2.4	.9	.0	.0	7.7	33.3	7.5	27.3
.0	.9	.0	.0	2.6	.0	2.5	5.5
.0	.0	.0	.0	2.6	.0	1.2	6.1
.0	.9	.0	.0	3.8	6.7	2.5	19.5
.0	.9	.0	.0	3.8	6.7	2.5	10.9
.0	1.9	.0	.0	3.8	13.3	2.5	12.7
.0	1.9	.0	.0	3.8	13.3	2.5	10.9
.0	.9	.0	.0	2.6	.0	2.5	7.3
21.0	64.2	.0	100.0	41.0	66.7	6.3	94.5
71.4	56.6	.0	100.0	14.6	66.7	3.7	95.7
64.3	56.6	.0	100.0	33.3	66.7	6.0	92.7
69.0	58.5	.0	66.7	34.6	66.7	3.7	94.5
42.9	35.8	.0	100.0	30.8	60.0	3.7	92.7
52.4	32.1	.0	83.3	19.2	60.0	1.2	90.9

D TSK TITLES

F 330	F3-7	DO YOU USE OSCILLOSCOPES TO OBSERVE LISSAJOUS PATTERNS?	52.4	10.4	.0	50.0	2.6	.0	.0	32.7
F 331	F3-8	DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.	69.0	34.0	.0	66.7	28.2	13.3	1.2	90.9
F 332	F3-9	DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS?	23.8	17.9	.0	66.7	12.8	6.7	.0	58.2
F 333	F3-10	DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGES?	62.0	54.7	.0	100.0	29.5	60.0	3.7	94.5
F 334	F3-11	DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGES?	71.4	60.4	.0	100.0	32.1	53.3	3.7	94.5
F 335	F3-12	DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS?	42.0	38.7	.0	100.0	17.9	40.0	2.5	87.3
F 336	F3-13	DO YOU USE OSCILLOSCOPES TO OBSERVE DATA PATTERNS?	73.8	55.7	.0	66.7	24.4	13.3	1.2	60.0
F 337	F3-14	DO YOU USE OSCILLOSCOPES TO MEASURE RIPPLE VOLTAGES?	73.8	37.7	.0	100.0	20.5	46.7	1.2	80.0
F 338	F3-15	DO YOU USE OSCILLOSCOPES TO MEASURE PHASE JITTERS?	14.3	9.4	.0	50.0	14.1	.0	1.2	38.2
F 339	F3-16	DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?	26.2	33.0	.0	50.0	11.5	26.7	.0	70.9
F 340	F3-17	DO YOU USE OSCILLOSCOPES TO OBSERVE PHASE RELATIONSHIPS?	50.0	29.2	.0	66.7	17.9	26.7	1.2	83.6
F 341	F3-18	DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?	35.7	28.3	.0	66.7	17.9	20.0	.0	67.3

G SEMICONDUCTOR DIODES (G1), TRANSISTORS (G2), TRANSISTOR AMPLIFIERS (G3)

G 342	G1-1	DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.	73.8	54.7	9.1	100.0	52.6	66.7	10.0	96.4
G 343	G1-2	DO YOU INSPECT DIODES?	64.3	49.1	4.5	100.0	46.2	66.7	7.5	96.4
G 344	G1-3	DO YOU CHECK DIODES?	64.3	50.9	4.5	100.0	46.2	66.7	8.7	89.1

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D TSK TITLES

206 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	71 (M)	72F (M)	73 (M)	74 (M)	918 (M)
4.8	4.7	4.5	16.7	2.6	6.7	1.2	21.8			
9.5	12.3	.0	.0	7.7	6.7	3.7	34.5			
9.5	10.4	.0	33.3	7.7	6.7	3.7	34.5			
52.4	29.2	.0	33.3	28.2	13.3	5.0	76.4			
69.0	47.2	.0	50.0	43.6	53.3	10.0	94.5			
4.8	8.5	.0	16.7	5.1	.0	1.2	25.5			
52.4	32.1	.0	100.0	16.7	33.3	2.5	76.4			
50.0	31.1	.0	100.0	15.4	33.3	2.5	76.4			
33.3	19.8	.0	33.3	14.1	13.3	3.7	29.1			
59.5	40.6	.0	66.7	28.2	46.7	7.5	94.5			
73.8	50.9	4.5	83.3	42.3	53.3	7.5	96.4			
69.0	51.9	4.5	83.3	44.2	60.0	10.0	90.9			
14.3	10.4	.0	50.0	5.1	.0	2.5	58.2			
28.6	17.0	.0	16.7	11.5	.0	.0	61.8			
16.7	16.0	.0	16.7	6.4	.0	1.2	45.5			

G 345 G1-4 DO YOU USE ENERGY LEVEL DIAGRAM IN YOUR WORK WITH DIODES?

G 346 G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?

G 347 G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?

G 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?

G 349 G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?

G 350 G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW?

G 351 G1-10 DO YOU MEASURE FORWARD BIAS RESISTANCE?

G 352 G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?

G 353 G1-12 DO YOU READ DIODE COLOR CODING?

G 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN 538?

G 355 G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?

G 356 G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?

G 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?

G 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OR RESISTANCE VS TEMPERATURE INCREASES RESISTANCE DECREASES?

G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?

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D TASK TITLES

G 360	G1-19	DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
G 361	G1-20	DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?	64.3	38.7	4.5	50.0	24.4	20.0	10.0	90.9
G 362	G1-21	DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?	7.1	13.2	.0	.0	7.7	6.7	.0	32.7
G 363	G1-22	DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?	4.8	9.4	.0	.0	5.1	6.7	.0	25.5
G 364	G1-23	DO YOU NEED AN UNDERSTANDING OF CONVALENT BONDING IN SEMICONDUCTOR MATERIALS?	14.3	11.3	.0	.0	6.4	6.7	.0	34.5
G 365	G1-24	DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?	7.1	10.4	.0	.0	7.7	6.7	.0	27.3
G 366	G1-25	DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	11.0	12.3	.0	.0	10.3	6.7	.0	30.9
G 367	G1-26	DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?	31.0	20.8	.0	16.7	15.4	6.7	1.2	54.5
G 368	G1-27	DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	0.5	10.4	.0	16.7	9.0	6.7	.0	30.9
G 369	G1-28	DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	0.5	10.4	.0	16.7	7.7	6.7	.0	29.1
G 370	G1-29	DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	38.1	23.6	.0	50.0	17.9	13.3	3.7	70.9
G 371	G1-30	DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	38.1	23.6	.0	50.0	17.9	13.3	3.7	72.7
G 372	G1-31	DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	0.5	11.3	.0	16.7	10.3	6.7	.0	38.2
G 373	G1-32	DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?	0.5	11.3	.0	16.7	10.3	6.7	.0	36.4
G 374	G1-33	DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	9.5	12.3	.0	16.7	9.0	6.7	1.2	36.4
G 374	G1-33	DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	14.3	12.3	.0	16.7	7.7	6.7	2.5	47.3

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D TSK TITLES

G 375 G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN
BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?
G 376 G1-35 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT
RESISTANCE RATIO FOR DIODES?
G 377 G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN
SEMICONDUCTORS?
G 378 G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION
INFORMATION?
G 379 G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD
CURRENT DIODE RATINGS?
G 380 G1-39 DO YOU USE OR REFER TO PEAK RECUPRENT FORWARD CURRENT
DIODE RATINGS?
G 381 G1-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE
RATINGS?
G 382 G1-41 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE
DIODE RATINGS?
G 383 G2-1 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM G3-1; IF YES, CONTINUE.
G 384 G2-2 DO YOU INSPECT TRANSISTORS?
G 385 G2-3 DO YOU CHECK TRANSISTORS?
G 386 G2-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB)
FORWARD AND REVERSE RESISTANCE MEASUREMENTS?
G 387 G2-5 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD
AND RESISTANCE MEASUREMENTS?
G 388 G2-6 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)
RESISTANCE MEASUREMENTS?
G 389 G2-7 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?
G 390 G2-8 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?

306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 (M)
71	72	70F	72F	71	73	74	74	70
14.3	10.4	.0	.0	6.4	6.7	.0	36.4	
54.8	17.9	.0	33.3	11.5	26.7	2.5	67.3	
11.9	6.6	.0	16.7	3.8	.0	.0	20.0	
38.1	25.5	.0	16.7	15.4	20.0	1.2	85.5	
11.9	12.3	.0	16.7	3.8	13.3	.0	70.9	
4.8	10.4	.0	16.7	3.8	13.3	.0	56.4	
14.3	12.3	.0	16.7	5.1	13.3	.0	70.9	
23.8	12.3	.0	33.3	6.4	20.0	1.2	83.6	
73.8	60.4	9.1	83.3	42.3	66.7	18.8	96.4	
66.7	55.7	4.5	100.0	33.3	66.7	15.0	96.4	
66.7	56.6	4.5	100.0	38.5	60.0	12.5	89.1	
64.3	54.7	.0	66.7	33.3	40.0	11.2	92.7	
64.3	54.7	.0	100.0	29.5	33.3	10.0	87.3	
64.3	53.8	.0	100.0	29.5	33.3	10.0	87.3	
23.8	33.0	.0	50.0	16.7	13.3	5.0	63.6	
23.8	31.1	.0	50.0	14.1	6.7	6.3	63.6	

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G 391 G2-9 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?

G 392 G2-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR?

G 393 G2-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?

G 394 G2-12 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, A2, A3, ETC.?

G 395 G2-13 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION?

G 396 G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB B) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 8 PERCENT OF I(SUB E)?

G 397 G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?

G 398 G2-16 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?

G 399 G2-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?

G 400 G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?

G 401 G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?

G 402 G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?

G 403 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO THE BASE COLLECTOR VOLTAGE (AV = VCB/VBE)?

G 404 G2-22 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT (AI = IC/IB)?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
42.0	30.2	.0	83.3	20.5	40.0	7.5	61.8
14.3	20.8	.0	33.3	9.0	6.7	3.7	50.9
73.8	58.5	9.1	100.0	35.9	60.0	16.2	94.5
76.2	54.7	4.5	100.0	32.1	60.0	16.2	92.7
50.0	44.3	.0	50.0	17.9	33.3	7.5	94.5
33.3	27.4	.0	50.0	10.3	6.7	7.5	70.9
61.9	37.7	.0	66.7	16.7	33.3	10.0	83.6
19.0	15.1	.0	50.0	10.3	.0	3.7	38.2
9.5	11.3	.0	16.7	5.1	.0	1.2	29.1
9.5	9.4	.0	.0	5.1	.0	1.2	21.8
7.1	7.5	.0	.0	5.1	.0	1.2	20.0
7.1	6.6	.0	.0	5.1	.0	1.2	20.0
2.4	6.6	.0	16.7	3.8	.0	2.5	21.8
4.8	5.7	.0	16.7	2.6	.0	2.5	20.0

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D TSK	TITLES	FCPTD2 PAGE 95				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX						
		306 (M)	306 (M)	316 (M)	72F (M)	316 (M)	362 (M)	362 (M)	71 (M)	73 (M)	74 (M)	918 (M)
G 405	62-23 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE VOLTAGE GAIN (AP = AI X AV)?	2.4	5.7	.0	16.7	1.3	.0	3.7	25.5			
G 406	62-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF CURVE TRACING?	4.8	2.8	.0	.0	1.3	.0	.0	12.7			
G 407	63-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	47.6	23.6	4.5	66.7	29.5	53.3	11.2	87.3			
G 408	63-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?	47.6	17.9	4.5	66.7	20.5	60.0	8.7	85.5			
G 409	63-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?	31.0	8.5	.0	50.0	21.8	53.3	6.3	81.8			
G 410	63-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	50.0	17.9	4.5	66.7	16.7	60.0	3.7	87.3			
G 411	63-5 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS?	50.0	17.0	4.5	66.7	14.1	46.7	2.5	85.5			
G 412	63-6 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	38.1	13.2	.0	50.0	23.1	60.0	10.0	81.8			
G 413	63-7 DO YOU REMOVE OR REPLACE AMPLIFIER CIRCUIT COMPONENTS?	45.2	18.9	.0	33.3	10.3	40.0	6.3	83.6			
G 414	63-8 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR CURRENT RESULTS FROM A CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	40.5	13.2	.0	33.3	5.1	6.7	5.0	58.2			
G 415	63-9 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO SPECIFIC CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	4.8	4.7	.0	16.7	1.3	6.7	2.5	29.1			
G 416	63-10 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR VOLTAGE RESULTS FROM A CHANGE IN BASE CURRENT?	38.1	14.2	.0	50.0	3.8	6.7	3.7	60.0			
G 417	63-11 DO YOU USE OR REFER TO THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	35.7	14.2	.0	50.0	6.4	13.3	3.7	60.0			
G 418	63-12 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	9.5	7.5	.0	16.7	2.6	6.7	2.5	32.7			
G 419	63-13 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)?	2.4	6.6	.0	16.7	1.3	6.7	.0	9.1			

D TSK TITLES

G 420 63-14 DO YOU USE OR REFER TO THE OPERATING POINT Q
(QUIESCENT POINT) FOR A TRANSISTOR?

G 421 63-15 DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR
AMPLIFIERS?

G 422 63-16 DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR
AMPLIFIERS?

G 423 63-17 DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR
AMPLIFIERS?

G 424 63-18 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER

VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?

G 425 63-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER

(SWAMPING) RESISTOR STABILIZATION?

G 426 63-20 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS

STABILIZATION?

G 427 63-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR

STABILIZATION?

G 428 63-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD

BIAS DIODE STABILIZATION?

G 429 63-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS

DIODE STABILIZATION?

G 430 63-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE
TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE

DIODE STABILIZATION?

G 431 63-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION
FOR TRANSISTOR CIRCUITS?

306	306	316	316	362	362	362	362	918
71	72	70F	72F	71	73	74	70	
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	
26.2	8.5	4.5	16.7	2.6	.0	1.2	38.2	
38.1	15.1	.0	33.3	15.4	60.0	3.7	69.1	
28.6	13.2	.0	.0	12.8	20.0	3.7	60.0	
23.8	10.4	.0	.0	12.8	26.7	5.0	50.9	
7.1	7.5	.0	.0	6.4	.0	.0	32.7	
28.6	12.3	.0	16.7	7.7	6.7	.0	36.4	
26.2	11.3	.0	16.7	6.4	.0	.0	38.2	
26.2	9.4	.0	16.7	5.1	.0	.0	32.7	
26.2	12.3	.0	16.7	6.4	.0	1.2	40.0	
23.8	13.2	.0	16.7	6.4	.0	1.2	40.0	
11.9	11.3	.0	16.7	3.8	.0	.0	34.5	
26.2	7.5	.0	16.7	9.0	46.7	1.2	56.4	

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D TSK	TITLES	306 (M)	306 (M)	316 72 (M)	316 72F (M)	362 (M)	362 73 (M)	362 (M)	362 74 (M)	918 7C (M)
G 432	G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?	16.7	6.6	.0	16.7	7.7	40.0	1.2	52.7	
G 433	G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?	14.3	7.5	.0	16.7	9.0	1.3	.0	49.1	
G 434	G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?	14.3	5.7	.0	16.7	5.1	6.7	.0	30.9	
G 435	G3-29 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	9.5	11.3	.0	33.3	10.3	13.3	.0	34.5	
G 436	G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	11.9	6.6	.0	.0	2.6	.0	.0	41.8	
G 437	G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	35.7	12.3	.0	50.0	11.5	26.7	1.2	76.4	
G 438	G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?	10.0	6.6	4.5	16.7	3.8	.0	.0	41.8	
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	16.7	3.8	4.5	16.7	3.8	6.7	.0	50.9	
G 440	G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	26.2	9.4	.0	16.7	5.1	6.7	.0	60.0	
G 441	G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (DOUBLERS/TRIPLERS)?	26.2	12.3	.0	66.7	7.7	20.0	1.2	74.5	
G 442	G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?	14.3	4.7	4.5	33.3	6.4	6.7	.0	60.0	
G 443	G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?	9.5	4.7	4.5	.0	.0	.0	.0	50.9	
G 444	G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?	16.7	6.6	4.5	33.3	16.7	60.0	5.0	67.3	
G 445	G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?	38.1	11.3	4.5	50.0	11.5	33.3	.0	76.4	
G 446	G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	11.9	4.7	.0	.0	1.3	.0	.0	38.2	
G 447	G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?	16.7	3.8	.0	.0	1.3	.0	.0	41.8	
G 448	G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?	11.9	2.8	.0	16.7	3.8	.0	.0	56.4	
G 449	G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?	28.6	3.8	.0	16.7	1.3	6.7	.0	78.2	

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D TSK TITLES

G 450 G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS 28.6 6.6 4.5 16.7 2.6 13.3 .0 83.6
(OP AMPS)?

G 451 G3-45 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS? 19.0 7.5 4.5 33.3 1.8 6.7 1.2 69.1

G 452 G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS? 7.1 3.8 .0 .0 .0 .0 .0 49.1

H SOLID-STATE SPECIAL PURPOSE DEVICES (H1), POWER SUPPLIES

(H2), OSCILLATORS (H3)

H 453 H1-1 DO YOU USE OR REFER TO VARACTORS/VARICAP COMPONENTS? 19.0 14.2 .0 16.7 7.7 13.3 .0 60.0

H 454 H1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS? 40.5 15.1 .0 16.7 7.7 13.3 .0 72.7

H 455 H1-3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTOR COMPONENTS? 42.9 29.2 .0 33.3 14.1 6.7 .0 92.7

H 456 H1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS? 50.0 35.8 .0 33.3 9.0 6.7 .0 96.4

H 457 H1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS? 73.8 65.1 9.1 100.0 26.9 60.0 18.8 98.2

H 458 H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS? 71.4 63.2 9.1 100.0 26.9 40.0 25.0 94.5

H 459 H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS? 14.3 14.2 9.1 .0 11.5 .0 1.2 41.8

H 460 H1-8 DO YOU USE OR REFER TO LED'S/LCD'S COMPONENTS? 71.4 53.8 27.3 100.0 30.8 6.7 17.5 96.4

H 461 H1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS? 11.9 7.5 4.5 .0 1.3 6.7 .0 36.4

H 462 H1-10 DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS? 76.2 32.1 9.1 100.0 17.9 13.3 3.7 98.2

H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS? 28.6 30.2 4.5 33.3 5.1 .0 .0 98.2

H 464 H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS? 9.5 4.7 .0 .0 2.6 .0 .0 89.1

H 465 H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS? 16.7 11.3 .0 33.3 2.6 .0 2.5 80.0

H 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS? 4.8 4.7 .0 .0 1.3 .0 .0 81.8

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D TSK

TITLES

H 467	H2-1	IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM 43-1; IF YES, CONTINUE.	76.2	66.0	68.2	100.0	61.5	80.0	63.7	94.5
H 468	H2-2	DO YOU INSPECT POWER SUPPLIES?	66.7	62.3	40.9	100.0	53.8	66.7	62.5	94.5
H 469	H2-3	DO YOU CLEAN POWER SUPPLIES?	61.9	52.8	9.1	83.3	50.0	60.0	47.5	74.5
H 470	H2-4	DO YOU ALIGN OR ADJUST POWER SUPPLIES?	69.0	50.0	50.0	83.3	52.6	66.7	13.7	92.7
H 471	H2-5	DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?	66.7	53.8	40.9	66.7	47.4	53.3	45.0	94.5
H 472	H2-6	DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?	66.7	52.8	40.9	66.7	38.5	53.3	31.3	92.7
H 473	H2-7	DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?	52.4	55.7	.0	66.7	43.6	66.7	60.0	92.7
H 474	H2-8	DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?	64.3	48.1	.0	66.7	37.2	46.7	28.7	92.7
H 475	H2-9	DO YOU INSPECT OR SERVICE COOLANT LEVELS?	4.8	6.6	13.6	16.7	6.4	.0	2.5	34.5
H 476	H2-10	DO YOU WORK WITH HALF-WAVE RECTIFIERS?	59.5	46.2	4.5	83.3	25.6	40.0	7.5	90.9
H 477	H2-11	DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?	66.7	49.1	4.5	100.0	72.1	40.0	10.0	90.9
H 478	H2-12	DO YOU WORK WITH BRIDGE RECTIFIERS?	69.0	52.8	12.6	83.3	34.6	33.3	13.7	92.7
H 479	H2-13	DO YOU WORK WITH THREE-PHASE RECTIFIERS?	23.8	12.3	18.2	66.7	28.2	6.7	5.0	63.6
H 480	H2-14	DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	69.0	59.4	45.5	100.0	53.8	66.7	22.5	94.5
H 481	H2-15	DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	38.1	23.6	13.6	50.0	32.3	33.3	7.5	78.2
H 482	H2-16	DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	52.4	46.2	18.2	83.3	39.7	60.0	8.7	83.6
H 483	H2-17	DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	61.9	46.2	27.3	83.3	43.6	33.3	17.5	87.3
H 484	H2-18	DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?	57.1	29.2	.0	50.0	15.4	60.0	2.5	78.2
H 485	H2-19	DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	35.7	17.9	.0	50.0	10.3	13.3	2.5	72.7
H 486	H2-20	DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGES IN YOUR WORK WITH RECTIFIERS?	21.4	14.2	.0	50.0	10.3	13.3	3.7	63.6
H 487	H2-21	DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN YOUR WORK WITH RECTIFIERS?	45.2	40.6	.0	50.0	12.8	53.3	2.5	85.5

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D TSM

TITLES

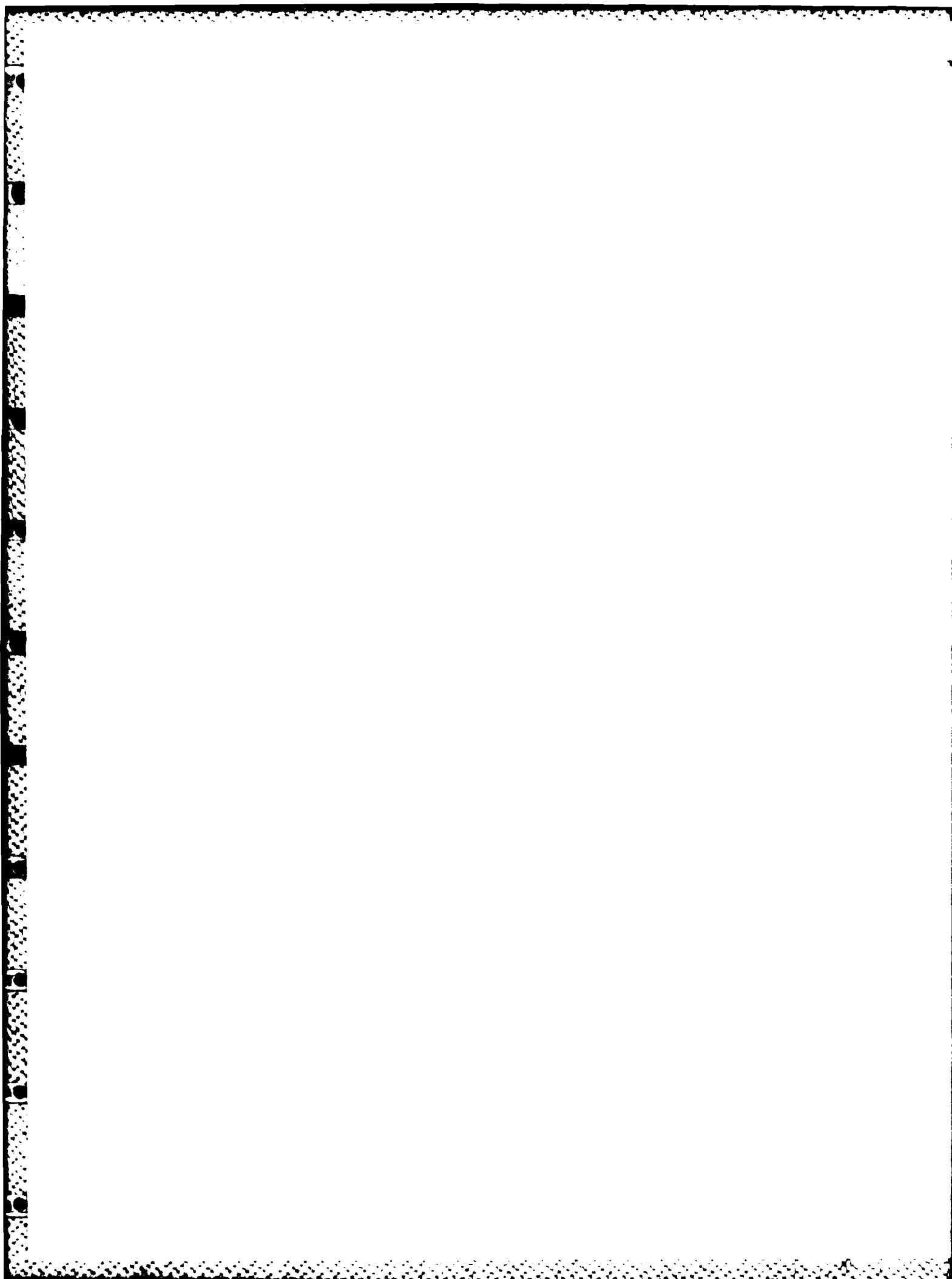
H 488 H2-22 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 489 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS?
H 490 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS?
H 491 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS?
H 492 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS?
H 493 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS?
H 494 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS?
H 495 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER?
H 496 H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS OTHER THAN SOLID-STATE?
H 497 H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?
H 498 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 11-1; IF YES, CONTINUE.
H 499 H3-2 DO YOU INSPECT OSCILLATORS?
H 500 H3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?
H 501 H3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?
H 502 H3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?
H 503 H3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?
H 504 H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
50.0	43.4	4.5	83.3	23.1	46.7	13.7	89.1
66.7	46.2	9.1	50.0	26.9	53.3	12.5	90.9
45.2	28.3	9.1	50.0	19.2	33.3	13.7	80.0
47.6	19.8	4.5	16.7	14.1	13.3	3.7	69.1
33.3	17.9	4.5	33.3	12.8	13.3	3.7	67.3
33.3	12.3	4.5	.0	6.4	13.3	6.3	67.3
45.2	11.3	4.5	.0	7.7	13.3	5.0	72.7
4.8	7.5	.0	.0	.0	.0	.0	16.4
14.3	12.3	4.5	16.7	19.2	6.7	3.7	45.5
69.0	46.2	13.6	66.7	29.5	46.7	10.0	89.1
61.9	19.8	.0	16.7	41.0	66.7	6.3	63.6
52.4	13.2	.0	.0	29.5	53.3	3.7	61.8
52.4	9.4	.0	16.7	26.9	46.7	3.7	63.6
54.8	10.4	.0	.0	24.4	40.0	1.2	58.2
40.5	10.4	.0	.0	7.7	13.3	.0	58.2
57.1	11.3	.0	.0	19.2	33.3	1.2	60.0
40.5	9.4	.0	.0	5.1	13.3	.0	60.0
31.0	11.3	.0	.0	3.8	26.7	1.2	60.0

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D TSK	TITLES	FCPT02 PAGE 101				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX			
		306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
H 506	H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?	35.7	9.4	.0	.0	6.4	13.3	1.2	54.5
H 507	H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?	33.3	9.4	.0	.0	10.3	20.0	1.2	41.8
H 508	H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?	42.9	10.4	.0	16.7	14.1	20.0	1.2	52.7
H 509	H3-12 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL OSCILLATIONS)?	35.7	9.4	.0	.0	2.6	.0	1.2	56.4
H 510	H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?	28.6	8.5	.0	16.7	10.3	.0	1.2	49.1
H 511	H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?	35.7	9.4	.0	16.7	5.1	6.7	.0	65.5
H 512	H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?	35.7	11.3	.0	16.7	5.1	13.3	1.2	63.6
H 513	H3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?	50.0	13.2	.0	16.7	5.1	.0	1.2	61.8
H 514	H3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOPS (PLL)?	14.3	6.6	.0	.0	2.6	.0	.0	38.2
H 515	H3-18 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	7.1	3.8	.0	.0	19.2	20.0	1.2	18.2
H 516	H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS?	16.7	6.6	.0	16.7	1.3	13.3	.0	47.3
H 517	H3-20 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS?	21.4	6.6	.0	16.7	1.3	13.3	.0	45.5
H 518	H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?	28.6	4.7	.0	16.7	1.3	.0	.0	34.5
H 519	H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?	9.5	3.8	.0	.0	.0	.0	.0	25.5
H 520	H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATORS?	26.2	3.8	.0	16.7	1.3	.0	.0	45.5
H 521	H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?	50.0	10.4	.0	16.7	2.6	.0	.0	54.5
H 522	H3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO) SINUSOIDAL OSCILLATORS?	26.2	4.7	.0	16.7	2.6	.0	1.2	43.6
H 523	H3-26 DO YOU WORK WITH WIEB BRIDGE OSCILLATORS SINUSOIDAL OSCILLATORS?	7.1	8.5	.0	.0	2.6	6.7	.0	47.3
H 524	H3-27 DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF SINUSOIDAL OSCILLATOR?	16.7	9.4	.0	.0	25.6	20.0	3.7	20.0
H 525	H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?	35.7	8.5	.0	16.7	12.8	13.3	.0	60.0



D TSK	TITLES	306 (M)	306 (M)	72 (M)	316 (M)	316 (M)	72F (M)	316 (M)	362 (M)	362 (M)	71 (M)	73 (M)	362 (M)	362 (M)	74 (M)	70 (M)	918
H 526	H3-29 DO YOU WORK WITH BLOCKING OSCILLATORS?	16.7	2.8	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	47.3
H 527	H3-30 DO YOU WORK WITH BURST GENERATORS?	7.1	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	36.4
H 528	H3-31 DO YOU WORK WITH BLOCKED OSCILLATORS?	7.1	1.9	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	30.2

I MULTIVIBRATORS (11), LIMITERS AND CLAMPERS (12), ELECTRON TUBES (13)

I 529	I1-1 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 12-1; IF YES, CONTINUE.	60.0	23.6	.0	.0	.0	.0	.0	2.6	20.0	1.2	.0	.0	.0	.0	.0	69.1
I 530	I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?	23.8	12.3	.0	.0	.0	.0	.0	2.6	20.0	.0	.0	.0	.0	.0	.0	61.8
I 531	I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORK FREQUENCY DETERMINING DEVICES (FDD)?	42.0	17.0	.0	.0	.0	.0	.0	2.6	20.0	.0	.0	.0	.0	.0	.0	65.5
I 532	I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL FREQUENCY DETERMINING DEVICES (FDD)?	28.6	15.1	.0	.0	.0	.0	.0	2.6	6.7	.0	.0	.0	.0	.0	.0	58.2
I 533	I1-5 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	11.0	6.6	.0	.0	.0	.0	.0	1.3	6.7	1.2	.0	.0	.0	.0	.0	16.4
I 534	I1-6 DO YOU WORK WITH ASTABLE (FPEE RUNNING) MULTIVIBRATORS?	61.9	17.9	.0	.0	.0	.0	.0	1.3	20.0	1.2	.0	.0	.0	.0	.0	69.1
I 535	I1-7 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?	60.0	19.8	.0	.0	.0	.0	.0	1.3	13.3	1.2	.0	.0	.0	.0	.0	70.9
I 536	I1-8 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?	71.4	20.8	.0	.0	.0	.0	.0	1.3	20.0	1.2	.0	.0	.0	.0	.0	70.9
I 537	I1-9 DO YOU WORK WITH R-S FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	28.6	8.5	.0	.0	.0	.0	.0	.0	13.3	.0	.0	.0	.0	.0	.0	52.7
I 538	I1-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	73.8	19.8	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	60.0
I 539	I1-11 DO YOU WORK WITH "D" FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	33.3	5.7	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	41.8
I 540	I2-1 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 13-1; IF YES, CONTINUE.	45.2	15.1	.0	.0	.0	.0	.0	2.6	6.7	.0	.0	.0	.0	.0	.0	61.8

D TSK TITLES

I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?
I 542 I2-3 DO YOU WORK WITH SHUNT DIODE LIMITERS?
I 543 I2-4 DO YOU WORK WITH LIMITERS WITH BIAS?
I 544 I2-5 DO YOU WORK WITH ZENER DIODE LIMITERS?
I 545 I2-6 DO YOU WORK WITH TRANSISTOR LIMITERS?
I 546 I2-7 DO YOU WORK WITH TRIODE LIMITERS?
I 547 I2-8 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS?
I 548 I2-9 DO YOU WORK WITH BIAS DIODE CLAMPING CIRCUITS?
I 549 I2-10 DO YOU WORK WITH DC RESTORERS?

I 550 I3-1 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH
CONTAINS BASIC ELECTRON TUBES (FOR PURPOSES OF THIS
QUESTION DO NOT CONSIDER HIGH-FREQUENCY DEVICES SUCH AS
KLYSTRONS, TRAVELING WAVE TUBES, BACKWARD WAVE
OSCILLATORS, OR MAGNETRONS AS ELECTRON TUBES)? IF NO, GO
TO ITEM J1-1; IF YES, CONTINUE.

I 551 I3-2 DO YOU CHECK THE CONDITION OF ELECTRON TUBES?
I 552 I3-3 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES?
I 553 I3-4 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES?
I 554 I3-5 DO YOU USE SCOPES TO CHECK ELECTRON TUBES?
I 555 I3-6 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES?
I 556 I3-7 DO YOU USE OR REFER TO CUTOFF?
I 557 I3-8 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING?
I 558 I3-9 DO YOU USE OR REFER TO PEAK CURRENT RATING?
I 559 I3-10 DO YOU USE OR REFER TO TRANSIT TIME?
I 560 I3-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING?
I 561 I3-12 DO YOU USE OR REFER TO SATURATION?
I 562 I3-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE?
I 563 I3-14 DO YOU USE OR REFER TO PLATE VOLTAGE?
I 564 I3-15 DO YOU USE OR REFER TO PLATE CURRENT?
I 565 I3-16 DO YOU USE OR REFER TO GRID VOLTAGE?
I 566 I3-17 DO YOU USE OR REFER TO GRID CURRENT?

306	306	316	316	362	362	362	918
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
31.0	11.3	.0	.0	1.3	6.7	.0	54.5
31.0	10.4	.0	.0	.0	6.7	.0	54.5
19.0	4.7	.0	.0	.0	6.7	.0	41.8
40.5	13.2	.0	.0	1.3	6.7	.0	51.8
38.1	11.3	.0	.0	2.6	6.7	.0	54.5
11.9	1.9	.0	.0	.0	.0	.0	34.5
33.3	7.5	.0	.0	.0	.0	.0	60.0
26.2	4.7	.0	.0	1.3	.0	.0	40.0
16.7	.9	.0	.0	.0	.0	.0	25.5
7.1	13.2	4.5	66.7	16.7	13.3	.0	47.3
7.1	11.3	.0	66.7	15.4	.0	.0	45.5
7.1	6.6	.0	33.3	11.5	.0	.0	32.7
7.1	8.5	.0	66.7	7.7	6.7	.0	43.6
7.1	8.5	.0	16.7	1.3	6.7	.0	41.8
7.1	10.4	.0	50.0	9.0	.0	.0	40.0
7.1	7.5	.0	33.3	1.3	.0	.0	32.7
7.1	1.9	.0	.0	.0	.0	.0	18.2
7.1	3.8	.0	.0	.0	.0	.0	21.8
2.4	4.7	.0	.0	.0	.0	.0	14.5
2.4	3.8	.0	.0	.0	.0	.0	18.2
7.1	8.5	.0	16.7	1.3	6.7	.0	36.4
4.8	4.7	.0	.0	2.6	.0	.0	29.1
7.1	11.3	4.5	33.3	5.1	.0	.0	45.5
7.1	8.5	.0	16.7	3.8	.0	.0	38.2
7.1	10.4	.0	66.7	5.1	.0	.0	43.6
7.1	9.4	.0	33.3	3.8	.0	.0	36.4

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D TASK TITLES

I 567	I3-18	DO YOU USE OR REFER TO CATHODE VOLTAGE?	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
I 568	I3-19	DO YOU USE OR REFER TO CATHODE CURRENT?	7.1	10.4	.0	66.7	5.1	.0	.0	45.5
I 569	I3-20	DO YOU USE OR REFER TO FILAMENT VOLTAGE?	7.1	8.5	.0	33.3	3.8	.0	.0	34.5
I 570	I3-21	DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?	7.1	11.3	.0	50.0	5.1	.0	.0	47.3
I 571	I3-22	DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?	4.8	5.7	.0	.0	.0	.0	.0	18.2
I 572	I3-23	DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)?	9.5	7.5	.0	16.7	3.8	.0	.0	20.0
I 573	I3-24	DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?	9.5	1.9	.0	.0	2.6	.0	1.2	12.7
I 574	I3-25	DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?	11.9	.9	.0	.0	2.6	.0	.0	20.0
I 575	I3-26	DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?	11.9	1.9	.0	.0	3.8	.0	.0	16.4
I 576	I3-27	DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?	11.9	.9	.0	.0	2.6	.0	.0	9.1
I 577	I3-28	DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	2.4	3.8	.0	33.3	1.3	.0	.0	25.5
I 578	I3-29	DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?	4.8	3.8	.0	16.7	1.3	.0	.0	23.6
I 579	I3-30	DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?	4.8	4.7	.0	33.3	2.6	.0	.0	34.5
I 580	I3-31	DO YOU USE OR REFER TO GAIN?	2.4	3.8	.0	33.3	2.6	.0	.0	34.5
I 581	I3-32	DO YOU USE OR REFER TO EFFICIENCY?	4.8	5.7	.0	50.0	1.3	.0	.0	34.5
I 582	I3-33	DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	2.4	3.8	.0	16.7	2.6	.0	.0	16.4
I 583	I3-34	DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.8	3.8	.0	50.0	3.8	.0	.0	36.4
I 584	I3-35	DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.8	2.8	.0	33.3	1.3	.0	.0	40.0
			4.8	.9	.0	.0	.0	.0	.0	5.5

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D TSK TITLES

I 585 I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?
I 586 I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?
I 587 I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL
SUCH AS MANUALS OR CHARTS?
I 588 I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?

J ELECTRON TUBE AMPLIFIERS AND CIRCUITS (J1), SPECIAL PURPOSE
ELECTRON TUBES (J2), HETERODYNING AND MODULATION -
DEMODULATION (MODEMS) (J3)

J 589 J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS
IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES,
CONTINUE.

J 590 J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON
TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER
CIRCUITS?

J 591 J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?
J 592 J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?
J 593 J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED
AMPLIFIERS?

J 594 J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED
AMPLIFIERS?

J 595 J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE
OF AMPLIFIER?

J 596 J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD
CATHODE)?

J 597 J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?

J 598 J2-3 DO YOU WORK WITH SEAM POWER TUBES?

J 599 J2-4 DO YOU WORK WITH THYRATRONS?

306	306	316	316	362	362	362	918
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
7.1	9.4	.0	66.7	9.0	.0	.0	49.1
7.1	10.4	.0	66.7	10.3	.0	.0	49.1
7.1	7.5	.0	16.7	9.0	.0	.0	45.5
4.8	6.6	.0	16.7	2.6	.0	.0	43.6
9.5	6.6	.0	16.7	7.7	.0	.0	40.0
7.1	.9	.0	.0	1.3	.0	.0	16.4
2.4	.9	.0	.0	1.3	.0	.0	12.7
4.8	3.8	.0	.0	1.3	.0	.0	25.5
4.8	.9	.0	.0	1.3	.0	.0	16.4
4.8	.0	.0	.0	1.3	.0	.0	16.4
.0	1.9	.0	16.7	3.8	.0	.0	10.9
2.4	7.5	.0	50.0	2.6	.0	.0	52.7
19.0	26.4	.0	16.7	11.5	13.3	2.5	87.3
2.4	.9	.0	.0	1.3	.0	.0	36.4
4.8	1.9	.0	.0	.0	.0	1.2	41.8

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D TSK	TITLES										306 (M)	306 (M)	316 72 (M)	316 72F (M)	362 (M)	362 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 70 (M)								
J 600	J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?										14.3	18.9	.0	16.7	3.8	.0	.0	.0	.0	72.7									
J 601	J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?										16.7	15.1	.0	16.7	3.8	.0	1.2	76.4											
J 602	J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?										16.7	14.2	.0	.0	3.6	.0	1.2	69.1											
J 603	J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?										16.7	17.0	.0	.0	2.6	.0	.0	72.7											
J 604	J2-9 DO YOU USE OR REFER TO AQUADAG COATINGS CONCERNING CRT'S?										7.1	3.8	.0	.0	2.6	.0	.0	32.7											
J 605	J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?										7.1	1.9	.0	.0	1.3	.0	.0	43.6											
J 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?										9.5	3.8	.0	.0	2.6	.0	.0	36.4											
J 607	J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?										11.9	2.8	.0	.0	2.6	.0	.0	38.2											
J 608	J2-13 DO YOU USE OR REFER TO FLOURESCENCE CONCERNING CRT'S?										9.5	5.7	.0	.0	2.6	.0	.0	60.0											
J 609	J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?										7.1	8.5	.0	.0	3.8	.0	.0	56.4											
J 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?										7.1	1.9	.0	.0	1.3	.0	.0	27.3											
J 611	J3-1 DO YOU WORK ON TRANSMIT OR PECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.										61.0	25.5	9.1	.0	17.9	13.3	12.5	18.2											
J 612	J3-2 DO YOU PERFORM TASKS ON FREQUENCY CONVERTER SYSTEMS STAGES?										23.8	8.5	9.1	.0	5.1	.0	.0	12.7											
J 613	J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?										14.3	5.7	9.1	.0	3.8	.0	.0	12.7											
J 614	J3-4 DO YOU PERFORM TASKS ON MODEN SYSTEMS STAGES?										59.5	15.1	4.5	.0	16.7	.0	7.5	7.3											
J 615	J3-5 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?										14.3	1.9	.0	.0	1.3	.0	1.2	7.3											
J 616	J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?										9.5	1.9	.0	.0	1.3	.0	1.2	7.3											

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J 617 J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)

35.7	3.8	.0	.0	3.8	.0	1.2	10.9
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K AM SYSTEMS (K1), FM SYSTEMS (K2), NUMBERING SYSTEMS (K3)

K 618 K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.

7.1	2.8	9.1	.0	2.6	6.7	1.2	9.1
-----	-----	-----	----	-----	-----	-----	-----

K 619 K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?

2.4	.9	9.1	.0	2.6	6.7	.0	5.5
-----	----	-----	----	-----	-----	----	-----

K 620 K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?

2.4	.9	4.5	.0	1.3	6.7	.0	5.5
-----	----	-----	----	-----	-----	----	-----

K 621 K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?

2.4	.9	4.5	.0	2.6	6.7	.0	5.5
-----	----	-----	----	-----	-----	----	-----

K 622 K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS?

2.4	.9	4.5	.0	3.8	6.7	.0	5.5
-----	----	-----	----	-----	-----	----	-----

K 623 K1-6 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS?

2.4	.0	4.5	.0	2.6	.0	.0	5.5
-----	----	-----	----	-----	----	----	-----

K 624 K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?

2.4	.9	.0	.0	2.6	6.7	.0	5.5
-----	----	----	----	-----	-----	----	-----

K 625 K1-8 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?

2.4	.9	.0	.0	2.6	.0	.0	5.5
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K 626 K1-9 DO YOU PERFORM TASKS ON RF OSCILLATORS? SYNTHESIZERS?

2.4	.0	.0	.0	1.3	.0	.0	5.5
-----	----	----	----	-----	----	----	-----

K 627 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS?

2.4	.0	.0	.0	1.3	.0	.0	5.5
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K 628 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?

2.4	.9	.0	.0	1.3	6.7	.0	5.5
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K 629 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?

2.4	.0	.0	.0	1.3	6.7	.0	5.5
-----	----	----	----	-----	-----	----	-----

K 630 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?

2.4	.0	.0	.0	1.3	.0	.0	5.5
-----	----	----	----	-----	----	----	-----

K 631 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?

2.4	.0	.0	.0	1.3	.0	.0	5.5
-----	----	----	----	-----	----	----	-----

K 632 K1-15 DO YOU PERFORM TASKS ON DETECTORS?

2.4	.0	.0	.0	1.3	6.7	.0	5.5
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K 633 K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?

2.4	.0	.0	.0	1.3	.0	.0	5.5
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K 634 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?

2.4	.9	.0	.0	2.6	.0	.0	5.5
-----	----	----	----	-----	----	----	-----

K 635 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?

2.4	1.9	.0	.0	3.8	.0	1.2	5.5
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C TSM TITLES

C TSM	TITLES	306 (M)	306 (M)	72 (M)	316 (M)	316 (M)	72F (M)	362 (M)	362 (M)	71 (M)	362 (M)	73 (M)	74 (M)	918 (M)
K 636	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?	2.4	1.9	.0	.0	2.6	.0	1.2	5.5					
K 637	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?	2.4	.9	4.5	.0	3.8	.0	1.2	5.5					
K 638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IF YOU PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	14.3	3.8	13.6	.0	6.4	6.7	3.7	10.9					
K 639	K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?	7.1	1.9	13.6	.0	2.6	.0	.0	5.5					
K 640	K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?	7.1	.9	4.5	.0	.0	.0	.0	5.5					
K 641	K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?	0.5	.9	4.5	.0	1.3	.0	.0	5.5					
K 642	K2-5 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?	9.5	.9	9.1	.0	3.8	.0	.0	3.6					
K 643	K2-6 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?	0.5	.0	9.1	.0	1.3	.0	.0	3.6					
K 644	K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?	4.8	.9	.0	.0	1.3	.0	.0	3.6					
K 645	K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?	4.8	.0	.0	.0	1.3	.0	.0	5.5					
K 646	K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?	2.4	.0	.0	.0	1.3	.0	.0	3.6					
K 647	K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	9.5	.0	4.5	.0	1.3	.0	.0	3.6					
K 648	K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?	4.8	.0	4.5	.0	1.3	.0	.0	3.6					
K 649	K2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)?	4.8	.0	4.5	.0	1.3	.0	.0	3.6					
K 650	K2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	4.8	.0	4.5	.0	1.3	.0	.0	3.6					
K 651	K2-14 DO YOU PERFORM TASKS ON RF AMPLIFIERS?	4.8	.0	4.5	.0	1.3	.0	.0	3.6					
K 652	K2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?	4.8	.0	4.5	.0	1.3	.0	.0	3.6					
K 653	K2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	.0	3.6					
K 654	K2-17 DO YOU PERFORM TASKS ON LIMITERS?	2.4	.0	.0	.0	1.3	.0	.0	3.6					
K 655	K2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?	9.5	.0	.0	.0	1.3	.0	.0	3.6					
K 656	K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?	4.8	.9	.0	.0	1.3	.0	.0	3.6					
K 657	K2-20 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?	4.8	.9	.0	.0	1.3	.0	.0	3.6					

D TSM

TITLES

K 658	K2-21	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSCIEVERS?	306	306	316	316	362	362	362	918
K 659	K2-22	DO YOU PLOT RECEIVE SIGNAL LEVEL CURVES (RSL)?	71	72	70F	71	73	74	70	(M)
K 660	K3-1	DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?	38.1	10.4	27.3	33.3	9.0	1.2	40.0	(M)
K 661	K3-2	DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?	45.2	16.0	22.7	33.3	14.1	2.5	49.1	(M)
K 662	K3-3	DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?	14.3	3.8	.0	50.0	15.4	2.5	30.9	(M)
K 663	K3-4	DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?	35.7	8.5	36.4	33.3	10.3	2.5	41.8	(M)
K 664	K3-5	DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?	40.5	8.5	13.6	33.3	10.3	2.5	41.8	(M)
K 665	K3-6	DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?	11.9	4.7	.0	33.3	6.4	1.2	30.9	(M)
K 666	K3-7	DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?	45.2	17.0	18.2	33.3	11.5	1.2	49.1	(M)
K 667	K3-8	DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?	38.1	7.5	4.5	33.3	6.4	1.2	38.2	(M)
K 668	K3-9	DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?	11.9	5.7	4.5	33.3	10.3	1.2	30.9	(M)
K 669	K3-10	DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?	11.9	5.7	4.5	50.0	11.5	1.2	30.9	(M)
K 670	K3-11	DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?	11.9	3.8	4.5	33.3	6.4	1.2	30.9	(M)
K 671	K3-12	DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?	11.9	5.7	.0	33.3	10.3	1.2	30.9	(M)
K 672	K3-13	DO YOU ADD BINARY NUMBERS?	47.6	19.8	9.1	33.3	9.0	5.0	47.3	(M)
K 673	K3-14	DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD?	31.0	9.4	.0	16.7	5.1	1.2	38.2	(M)
K 674	K3-15	DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD?	35.7	12.3	.0	33.3	7.7	5.0	38.2	(M)
K 675	K3-16	DO YOU ADD OCTAL NUMBERS?	28.6	5.7	.0	16.7	5.1	1.2	34.5	(M)
K 676	K3-17	DO YOU SUBTRACT OCTAL NUMBERS?	28.6	5.7	4.5	16.7	5.1	1.2	34.5	(M)
K 677	K3-18	DO YOU ADD HEXADECIMAL NUMBERS?	11.9	4.7	.0	33.3	7.7	1.2	29.1	(M)
K 678	K3-19	DO YOU SUBTRACT HEXADECIMAL NUMBERS?	11.9	3.8	.0	33.3	7.7	1.2	29.1	(M)
K 679	K3-20	DO YOU DIVIDE BINARY NUMBERS?	31.0	7.5	.0	16.7	2.6	5.0	34.5	(M)
K 680	K3-21	DO YOU MULTIPLY BINARY NUMBERS?	31.0	7.5	.0	16.7	2.6	5.0	34.5	(M)
K 681	K3-22	DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	23.8	8.5	9.1	16.7	7.7	1.2	50.9	(M)

D TSK TITLES

K 682 K3-23 DO YOU USE OR REFER TO GRAY CODE?
K 683 K3-24 DO YOU USE OR REFER TO ICAD CODE?
K 684 K3-25 DO YOU USE OR REFER TO EXCESS-3 CODE?

306 306 316 316 362 362 362 918
71 72 70F 72F 71 73 74 70
(M) (M) (M) (M) (M) (M) (M) (M)

11.0 2.8 4.5 .0 3.8 .0 2.5 20.0
9.5 .9 .0 2.6 .0 2.5 7.3
0.5 1.9 .0 3.8 .0 2.5 14.5

L LOGIC FUNCTIONS (L1), BOOLEAN EQUATIONS (L2), COUNTERS (L3)

L 685 L1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.

L 686 L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?

L 687 L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?

L 688 L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?

L 689 L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS OR GATES?

L 690 L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?

L 691 L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?

L 692 L1-8 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?

L 693 L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?

L 694 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?

L 695 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?

L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?

71.4 29.2 31.8 50.0 7.7 20.0 .0 76.4
50.0 17.0 9.1 .0 3.8 6.7 .0 56.4
50.0 17.0 9.1 .0 3.8 6.7 .0 54.5
50.0 16.0 9.1 .0 3.8 .0 .0 54.5
52.4 16.0 9.1 .0 2.6 .0 .0 52.7
66.7 28.3 18.2 .0 6.4 .0 .0 74.5
66.7 28.3 18.2 .0 6.4 .0 .0 74.5
66.7 24.5 13.6 .0 5.1 .0 .0 72.7
66.7 25.5 13.6 .0 5.1 .0 .0 70.9
73.8 29.2 27.3 50.0 7.7 13.3 .0 81.8
73.8 30.2 27.3 50.0 7.7 13.3 .0 81.8
73.8 29.2 22.7 50.0 6.4 13.3 .0 81.8

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O TSM TITLES

L 697	L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "EXCLUSIVE OR" GATES?	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
L 698	L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED "AND" GATES?	73.8	27.4	18.2	33.3	5.1	6.7	.0	80.0
L 699	L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "B" BARS?	66.7	26.4	18.2	50.0	3.8	6.7	.0	81.8
L 700	L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "M" BARS?	47.6	3.8	.0	.0	.0	.0	.0	14.5
L 701	L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?	47.6	3.8	.0	.0	.0	.0	.0	14.5
L 702	L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS?	50.0	9.4	4.5	16.7	.0	.0	.0	20.0
L 703	L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR SYMBOLS?	73.8	22.6	.0	33.3	3.8	20.0	.0	67.3
L 704	L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS?	71.4	19.8	.0	33.3	1.3	13.3	.0	63.6
L 705	L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS?	73.8	24.5	18.2	33.3	5.1	20.0	.0	67.3
L 706	L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES?	66.7	21.7	18.2	16.7	2.6	6.7	.0	61.8
L 707	L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	59.5	19.8	.0	.0	2.6	.0	.0	54.5
L 708	L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS?	40.5	12.3	.0	16.7	3.8	.0	.0	47.3
L 709	L1-25 DO YOU USE OR REFER TO NONCOMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	40.5	11.3	.0	16.7	3.8	.0	.0	47.3
L 710	L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR "B" BARS?	40.5	6.6	.0	16.7	2.6	.0	.0	41.8
L 711	L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR "M" BARS?	26.2	1.9	.0	.0	.0	.0	.0	9.1
L 712	L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	26.2	1.9	.0	.0	.0	.0	.0	9.1
L 713	L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	31.0	2.8	.0	.0	.0	.0	.0	12.7
L 714	L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS?	61.9	13.1	.0	16.7	1.3	6.7	.0	60.0
L 715	L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	47.6	12.3	4.5	16.7	1.3	6.7	.0	56.4
L 716	L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTing FLIP-FLOP SCHEMATIC DIAGRAMS?	47.6	12.3	.0	16.7	1.3	6.7	.0	54.5

D TSK	TITLES	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
L 716	L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	40.5	9.4	4.5	16.7	1.3	6.7	.0	54.5
L 717	L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS?	45.2	13.2	.0	.0	1.3	.0	.0	45.5
L 718	L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.	52.4	16.0	.0	.0	9.0	.0	1.2	43.6
L 719	L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS?	23.8	5.7	.0	.0	.0	.0	.0	21.8
L 720	L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	11.9	4.7	.0	.0	.0	.0	.0	12.7
L 721	L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS?	19.0	8.5	.0	.0	.0	.0	.0	14.5
L 722	L2-5 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES?	47.6	12.3	.0	.0	1.3	.0	.0	49.1
L 723	L2-6 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS?	23.8	5.7	.0	.0	1.3	.0	.0	18.2
L 724	L2-7 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA?	26.2	6.6	.0	.0	.0	.0	.0	18.2
L 725	L2-8 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES?	28.6	8.5	.0	.0	.0	.0	.0	36.4
L 726	L2-9 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	9.5	5.7	.0	.0	.0	.0	.0	16.4
L 727	L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE?	47.6	15.1	.0	.0	2.6	.0	.0	45.5
L 728	L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS?	26.2	4.7	.0	.0	.0	.0	.0	16.4
L 729	L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS?	35.7	6.6	.0	.0	.0	.0	.0	20.0
L 730	L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	61.9	15.1	9.1	50.0	3.8	13.3	.0	50.9
L 731	L3-2 DO YOU USE OR REFER TO UP-COUNTERS?	57.1	15.1	9.1	33.3	1.3	.0	.0	49.1

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O TSK TITLES

L 732	L3-3	DO YOU USE OR REFER TO DOWN-COUNTERS?	306	306	316	316	362	362	918
L 733	L3-4	DO YOU USE OR REFER TO SERIAL COUNTERS?	71	72	70F	71	73	74	70
L 734	L3-5	DO YOU USE OR REFER TO PARALLEL COUNTERS?	(M)	(M)	(M)	(M)	(M)	(M)	(M)
L 735	L3-6	DO YOU USE OR REFER TO RING COUNTERS?	50.0	15.1	4.5	33.3	1.3	.0	47.3
L 736	L3-7	DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?	64.3	15.1	.0	33.3	1.3	.0	41.8
L 737	L3-8	DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?	64.3	14.2	.0	16.7	.0	.0	32.7
L 738	L3-9	DO YOU USE OR REFER TO DOWN CLOCKS?	35.7	7.5	4.5	16.7	.0	.0	32.7
L 739	L3-10	DO YOU USE OR REFER TO UP CLOCKS?	28.6	8.5	.0	.0	.0	6.7	41.8
L 740	L3-11	DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?	50.0	10.4	4.5	16.7	1.3	.0	36.4
L 741	L3-12	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS?	47.6	12.3	4.5	16.7	1.3	.0	45.5
L 742	L3-13	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS?	50.0	13.2	4.5	16.7	1.3	.0	45.5
L 743	L3-14	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN COUNTERS?	24.2	6.6	4.5	16.7	1.3	6.7	38.2
L 744	L3-15	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS?	50.0	15.1	4.5	.0	2.6	.0	41.8
L 745	L3-16	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS?	45.2	15.1	4.5	.0	2.6	.0	41.8
L 746	L3-17	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS?	40.5	13.2	.0	.0	1.3	.0	32.7
L 747	L3-18	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS?	40.5	8.5	.0	.0	1.3	.0	32.7
L 748	L3-19	DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?	33.3	7.5	.0	.0	1.3	.0	25.5
L 749	L3-20	DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS?	59.5	12.3	.0	.0	2.6	.0	36.4
L 750	L3-21	DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES?	64.3	15.1	.0	.0	2.6	.0	34.5
L 751	L3-22	DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?	50.0	7.5	.0	.0	2.6	.0	27.3
			50.0	5.7	.0	.0	2.6	.0	20.0
			33.3	8.5	.0	.0	1.3	.0	25.5
			50.0	10.4	.0	16.7	1.3	.0	29.1

D TASK TITLES

306 306 316 316 362 362 362 918
71 72 70F 71 73 74 70
(M) (M) (M) (M) (M) (M)

M TIMING CIRCUITS (M1), USE OF SIGNAL GENERATORS (M2), MOTORS AND GENERATORS (M3)

M 752	M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?	35.7	13.2	.0	33.3	3.6	6.7	1.2	80.0
M 753	M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING CIRCUITS?	7.1	3.8	.0	.0	.0	.0	.0	60.0
M 754	M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?	28.6	9.4	.0	33.3	5.1	20.0	.0	63.6
M 755	M1-4 DO YOU WORK WITH CLOCKING OSCILLATOR TIMING CIRCUITS?	14.3	2.8	.0	.0	1.3	.0	.0	54.5
M 756	M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	42.9	4.7	.0	.0	6.4	6.7	2.5	34.5
M 757	M1-6 DO YOU USE OR REFER TO RISE TIME?	45.2	12.3	.0	50.0	2.6	6.7	.0	78.2
M 758	M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?	42.9	8.5	.0	50.0	2.6	.0	.0	63.6
M 759	M1-8 DO YOU USE OR REFER TO SWEEP TIME?	45.2	12.3	.0	83.3	3.8	13.3	.0	83.6
M 760	M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?	21.4	8.5	.0	33.3	2.6	6.7	.0	67.3
M 761	M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?	21.4	9.4	.0	33.3	2.6	6.7	.0	58.2
M 762	M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS?	19.0	5.7	.0	16.7	2.6	6.7	.0	49.1
M 763	M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS?	21.4	5.7	.0	.0	.0	.0	.0	56.4
M 764	M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	35.7	47.2	13.6	83.3	39.7	80.0	16.2	74.5
M 765	M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS?	28.6	45.3	9.1	83.3	37.2	73.3	12.5	74.5
M 766	M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?	16.7	37.7	4.5	66.7	33.3	33.3	7.5	72.7
M 767	M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS?	19.0	36.8	9.1	33.3	24.4	33.3	7.5	67.3
M 768	M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS?	16.7	31.1	.0	.0	11.5	20.0	1.2	61.8
M 769	M2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?	26.2	11.3	.0	66.7	19.2	73.3	6.3	52.7
M 770	M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE?	23.8	13.2	.0	66.7	1.3	6.7	2.5	52.7
M 771	M2-8 DO YOU USE RF GENERATORS LESS THAN 1,000 MH?	9.5	6.6	.0	16.7	2.6	6.7	1.2	29.1
M 772	M2-9 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH?	2.4	2.8	.0	16.7	1.3	.0	1.2	25.5
M 773	M2-10 DO YOU USE WHITE NOISE GENERATORS?	2.4	1.9	.0	.0	1.3	.0	.0	27.3
M 774	M2-11 DO YOU USE PATTERN GENERATORS?	14.3	37.7	4.5	16.7	2.6	.0	.0	40.0
M 775	M2-12 DO YOU USE PSEUDO-RANDOM GENERATORS?	4.8	7.5	.0	.0	1.3	.0	.0	7.3
M 776	M2-13 DO YOU USE TIME MARK GENERATORS?	7.1	17.0	4.5	16.7	.0	.0	.0	50.9
M 777	M2-14 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS?	4.8	17.0	4.5	16.7	10.3	.0	1.2	38.2
M 778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	64.3	59.4	59.1	66.7	24.4	13.3	6.3	83.6
M 779	M3-2 DO YOU INSPECT MOTORS?	54.8	57.5	45.5	66.7	23.1	13.3	5.0	87.3
M 780	M3-3 DO YOU CLEAN OR LUBRICATE MOTORS?	52.4	53.8	9.1	33.3	23.1	13.3	.0	85.5
M 781	M3-4 DO YOU OPERATE MOTORS?	54.8	51.9	50.0	50.0	19.2	13.3	2.5	85.5
M 782	M3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTORS?	54.8	55.7	.0	50.0	20.5	13.3	6.3	85.5

D TASK TITLES

M 787	M3-6	DO YOU REMOVE OR REPLACE MOTOR PARTS?	306	306	316	362	362	362	918
M 788	M3-7	DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?	71	72	70F	72F	71	73	70
M 789	M3-8	DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?	42.0	50.9	.0	50.0	9.0	.0	85.5
M 790	M3-9	DO YOU PERFORM TASKS ON MOTOR FIELD COILS?	56.8	50.9	40.9	66.7	23.1	13.3	87.3
M 791	M3-10	DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?	31.0	51.9	4.5	33.2	9.0	.0	83.6
M 792	M3-11	DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?	16.7	40.6	.0	16.7	6.4	.0	58.2
M 793	M3-12	DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?	28.6	47.2	.0	16.7	9.0	.0	67.3
M 794	M3-13	DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?	21.4	34.9	.0	16.7	9.0	.0	69.1
M 795	M3-14	DO YOU PERFORM ANY TASKS ON MOTOR COMMUTATORS?	26.2	47.2	.0	16.7	12.8	.0	85.5
M 796	M3-15	DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?	19.0	43.4	.0	16.7	6.4	.0	61.8
M 797	M3-16	DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOR?	19.0	43.4	.0	16.7	7.7	.0	61.8
M 798	M3-17	DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR?	14.3	30.2	.0	16.7	5.1	.0	40.0
M 799	M3-18	DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?	2.4	11.3	.0	16.7	.0	.0	16.4
M 800	M3-19	DO YOU WORK WITH SYNCHRONOUS MOTORS?	9.5	17.9	4.5	16.7	.0	.0	32.7
M 801	M3-20	DO YOU WORK WITH INDUCTION MOTORS?	2.4	3.8	.0	16.7	.0	.0	21.8
M 802	M3-21	DO YOU WORK WITH SPLIT-PHASE MOTORS?	28.6	54.7	9.1	50.0	10.3	6.7	.0
M 803	M3-22	DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?	23.8	13.2	13.6	50.0	10.3	6.7	.0
M 804	M3-23	DO YOU WORK WITH SERVOS OR SYNCHROUS MOTORS?	9.5	3.8	18.2	16.7	7.7	.0	50.9
M 805	M3-24	DO YOU WORK WITH SHADED-POLE MOTORS?	19.0	15.1	13.6	.0	10.3	.0	1.2
M 806	M3-25	DO YOU INSPECT GENERATORS OR ALTERNATORS?	11.9	17.9	9.1	16.7	5.1	13.3	.0
M 807	M3-26	DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?	4.8	1.9	.0	.0	3.8	.0	1.2
M 808	M3-27	DO YOU OPERATE GENERATORS OR ALTERNATORS?	47.6	4.7	36.4	16.7	6.4	.0	43.6
M 809	M3-28	DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?	45.2	3.8	9.1	.0	6.4	.0	41.8
M 810	M3-29	DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?	45.2	3.8	50.0	16.7	7.7	.0	43.6
M 811	M3-30	DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?	47.6	3.8	.0	.0	5.1	.0	32.7
M 812	M3-31	DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	40.5	3.8	.0	.0	2.6	.0	32.7
M 813	M3-32	DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?	45.2	3.8	27.3	16.7	7.7	.0	40.0
M 814	M3-33	DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	31.0	3.8	13.6	16.7	3.8	.0	32.7

METER MOVEMENTS (M1), SATURABLE REACTORS AND MAGNETIC AMPLIFIERS (M2), WAVESHAPING CIRCUITS (M3)

M 809	M1-1	DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M2-1; IF YES, CONTINUE.	57.1	58.5	63.6	100.0	73.1	73.3	41.2	87.3
M 810	M1-2	DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?	16.7	27.4	9.1	16.7	14.1	6.7	5.0	45.5
M 811	M1-3	DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?	16.7	29.2	9.1	.0	14.1	20.0	6.3	49.1
M 812	M1-4	DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?	11.9	13.2	9.1	.0	14.1	.0	5.0	41.8

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O YSM TITLES

N 813 N1-5 DO YOU READ METER SCALES?	70.6	306	716	316	362	762	262	918
N 814 N1-6 DO YOU EXTEND THE RANGE OF AMMETERS?	71	72	70F	72F	71	73	74	70
N 815 N1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?								
N 816 N1-8 DO YOU ZERO OHMMETERS?	57.1	59.4	63.6	100.0	70.5	56.7	43.8	89.1
N 817 N1-9 DO YOU ZERO AMMETERS?	21.4	17.0	31.8	33.3	26.9	6.7	12.5	51.8
N 818 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)?	23.8	22.6	31.8	50.0	35.9	6.7	17.5	65.5
N 819 N1-11 DO YOU CONSIDER BALLASTIC RESPONSE OF METER MOVEMENTS?	50.5	57.5	59.1	100.0	59.2	73.3	43.8	87.3
N 820 N1-12 DO YOU CONSIDER OTHER METER MOVEMENTS?	23.8	21.7	22.7	50.0	29.5	13.3	10.0	69.1
N 821 N2-1 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1; IF YES, CONTINUE.	40.5	32.1	18.2	66.7	26.9	40.0	21.2	65.5
N 822 N2-2 DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	7.1	3.8	.0	16.7	2.6	.0	1.2	18.2
N 823 N2-3 DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	14.3	18.7	4.5	33.3	21.8	20.0	11.2	54.2
N 824 N2-4 DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	7.1	1.9	4.5	.0	1.3	.0	.0	12.7
N 825 N2-5 DO YOU TROUBLESHOOT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	2.4	.0	.0	.0	.0	.0	.0	9.1
N 826 N2-6 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS?	.0	.0	.0	.0	.0	.0	.0	9.1
N 827 N2-7 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	9.1
N 828 N2-8 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?	4.8	.9	.0	.0	.0	.0	.0	7.3
N 829 N2-9 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	2.4	1.9	.0	.0	.0	.0	.0	10.9
N 830 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	2.4	.9	.0	.0	.0	.0	.0	10.9
N 831 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS?	.0	.9	.0	.0	.0	.0	.0	7.3
N 832 N2-12 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS?	2.4	.0	.0	.0	.0	.0	.0	12.7
N 833 N3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N1-1; IF YES, CONTINUE.	35.7	17.9	4.5	.0	6.4	13.3	1.2	47.7
N 834 N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?	21.0	12.7	.0	.0	1.3	6.7	.0	53.6
N 835 N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?	26.0	11.3	.0	.0	1.3	9.7	.0	17.2
N 836 N3-4 DO YOU USE OR REFER TO PULSE FREQUENCY TIME (PFT)?	27.0	8.5	.0	.0	1.3	9.7	.0	17.2
N 837 N3-5 DO YOU USE OR REFER TO PULSE FREQUENCY FREQUENCY (PFF)?	16.0	6.6	.0	.0	1.3	6.7	.0	17.2
N 838 N3-6 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?	31.0	6.6	.0	.0	.0	.0	.0	43.6
N 839 N3-7 DO YOU USE OR REFER TO INTEGRATING CIRCUITS?	27.0	12.0	.0	.0	.0	.0	.0	53.6
N 840 N3-8 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME (T)?	27.0	8.0	.0	.0	1.3	.0	.0	26.2

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N 841 N3-9 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION?	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
N 842 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE CIRCUITS?	11.9	7.5	.0	.0	.0	.0	.0	21.8
N 843 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?	28.6	13.2	.0	.0	1.3	6.7	.0	69.1
N 844 N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?	14.3	8.5	.0	.0	.0	.0	.0	60.0
N 845 N3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID STATE CIRCUITS?	16.7	5.7	.0	.0	1.3	6.7	.0	69.1
N 846 N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE CIRCUITS?	9.5	6.6	.0	.0	1.3	.0	.0	63.6
N 847 N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?	11.9	5.7	.0	.0	.0	.0	.0	67.3
N 848 N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?	21.4	8.5	.0	.0	.0	.0	.0	60.0
N 849 N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?	14.3	9.4	.0	.0	1.3	.0	.0	60.0
N 850 N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS?	14.3	7.5	.0	.0	1.3	.0	.0	60.0
N 851 N3-19 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS?	26.2	10.4	.0	.0	.0	.0	.0	61.8
N 852 N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS?	26.2	10.4	.0	.0	1.3	.0	.0	60.0
N 853 N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS?	23.8	7.5	.0	.0	3.8	.0	.0	50.9
	23.8	7.5	.0	.0	1.3	.0	.0	58.2

0 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS (01), PULSE MODULATION SYSTEMS (02), ANTENNAS (03)

0 854 01-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-1; IF YES, CONTINUE.	.0	1.9	18.2	.0	.0	.0	.0	3.6
0 855 01-2 DO YOU INSPECT SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	.0	1.9	18.2	.0	.0	.0	.0	1.8
0 856 01-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	.0	.9	.0	.0	1.3	.0	1.2	1.8
0 857 01-4 DO YOU ALIGN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	.0	1.9	.0	.0	1.3	.0	1.2	1.3
0 858 01-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	.0	1.9	18.2	.0	1.3	.0	1.2	1.8
0 859 01-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	.0	1.9	17.6	.0	.0	.0	1.2	1.8
0 860 01-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	.0	1.9	4.5	.0	1.3	.0	1.2	1.8
0 861 01-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	.0	1.9	4.5	.0	1.3	.0	1.2	1.8

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D TSK TITLE'S

0 862	01-9	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM AUDIO AMPLIFIED STAGE?	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
0 863	01-10	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 864	01-11	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 865	01-12	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 866	01-13	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 867	01-14	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 868	01-15	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 869	01-16	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 870	01-17	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 871	01-18	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?	.0	.9	.0	.0	1.3	.0	.0	1.8
0 872	01-19	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?	.0	.0	4.5	.0	.0	.0	.0	1.9
0 873	01-20	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?	.0	.0	4.5	.0	1.3	.0	.0	1.8
0 874	01-21	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?	.0	.0	.0	.0	.0	.0	.0	1.8
0 875	01-22	DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?	.0	.0	4.5	.0	.0	.0	.0	1.8
0 876	01-23	DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 877	01-24	DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	6.7	.0	1.8
0 878	01-25	DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 879	01-26	DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 880	01-27	DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB OR ISB TRANSMITTERS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 881	01-28	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 882	01-29	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB RECEIVER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 883	01-30	DO YOU PERFORM ALPHABETIC STATION ASSESSMENT PROGRAMS (ASAP)?	.0	.0	.0	.0	.0	.0	.0	1.8
0 884	02-1	DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 03-1; IF YES, CONTINUE.	9.5	4.7	.0	.0	3.8	.0	1.2	12.7
0 885	02-2	DO YOU INSPECT PULSE MODULATION SYSTEMS?	4.8	1.9	.0	.0	2.6	.0	.0	12.7
0 886	02-3	DO YOU CLEAN PULSE MODULATION SYSTEMS?	2.4	.9	.0	.0	2.6	.0	.0	10.9
0 887	02-4	DO YOU ADJUST PULSE MODULATION SYSTEMS?	2.4	.9	.0	.0	1.3	.0	.0	12.7

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D TSK TITLES

306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)		
0 888	02-5	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS?	4.8	.9	.0	2.6	.0	.0	12.7
0 889	02-6	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS?	4.8	.0	.0	.0	.0	.0	12.7
0 890	02-7	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	2.4	.9	.0	1.3	.0	.0	12.7
0 891	02-8	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	2.4	.0	.0	1.3	.0	.0	12.7
0 892	02-9	DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	4.8	.0	.0	1.3	.0	.0	10.9
0 893	02-10	DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?	4.8	.9	.0	.0	.0	.0	10.9
0 894	02-11	DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	4.8	.0	.0	.0	.0	.0	9.1
0 895	02-12	DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?	4.8	.9	.0	1.3	.0	.0	7.3
0 896	02-13	DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?	2.4	.0	.0	.0	.0	.0	10.9
0 897	02-14	DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?	7.1	.0	.0	2.6	.0	.0	5.5
0 898	02-15	DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?	.0	.0	.0	.0	.0	.0	3.6
0 899	02-16	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?	4.8	.9	.0	.0	.0	.0	12.7
0 900	02-17	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODE STAGE?	.0	.0	.0	1.3	.0	.0	9.1
0 901	02-18	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	7.1	.9	.0	1.3	.0	.0	12.7
0 902	02-19	DO YOU PERFORM T/ KS ON PULSE MODULATION SYSTEM TIMER STAGE?	7.1	.0	.0	.0	.0	.0	12.7
0 903	02-20	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRON STAGE?	4.8	.0	.0	.0	.0	.0	7.3
0 904	02-21	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	4.8	.0	.0	.0	.0	.0	10.9
0 905	02-22	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?	4.8	.0	.0	.0	.0	.0	5.5
0 906	02-23	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?	7.1	.0	.0	.0	.0	.0	7.3
0 907	02-24	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	7.1	.0	.0	.0	.0	.0	10.9
0 908	02-25	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	10.9
0 909	02-26	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	7.1	.0	.0	.0	.0	.0	10.9
0 910	02-27	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	9.1
0 911	02-28	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	9.1
0 912	02-29	DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	4.8	.0	.0	1.3	.0	.0	10.9

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Q TASK TITLES

Q 913	02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	306 (M)	306 (M)	316 72F (M)	316 (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
Q 914	02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	4.8	.0	.0	.0	1.3	.0	.0	10.9
Q 915	02-32 DO YOU USE OR REFER TO PULSE SHAPE WHEN WORKING WITH PULSE MODULATION SYSTEMS?	7.1	.9	.0	.0	2.6	.0	.0	12.7
Q 916	02-33 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	7.1	.9	.0	.0	.0	.0	.0	12.7
Q 917	02-34 DO YOU USE OR REFER TO AVERAGE POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	4.8	.0	.0	.0	.0	.0	.0	10.9
Q 918	02-35 DO YOU USE OR REFER TO DUTY CYCLE (DC) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	4.8	.0	.0	.0	.0	.0	.0	12.7
Q 919	02-36 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	4.8	.0	.0	.0	1.3	.0	.0	12.7
Q 920	02-37 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	4.8	.0	.0	.0	.0	.0	.0	7.3
Q 921	02-38 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS?	4.8	.0	.0	.0	.0	.0	.0	9.1
Q 922	02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS?	4.8	.0	.0	.0	.0	.0	.0	3.6
Q 923	02-40 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS?	4.8	.0	.0	.0	.0	.0	.0	10.9
Q 924	03-1 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB? IF NO, GO TO ITEM P1-1; IF YES, CONTINUE.	4.8	3.8	22.7	16.7	.0	.0	1.2	3.6
Q 925	03-2 DO YOU INSPECT ANTENNAS?	4.8	2.8	16.2	16.7	.0	.0	1.2	1.8
Q 926	03-3 DO YOU CLEAN ANTENNAS?	2.4	.9	.0	.0	.0	.0	.0	1.8
Q 927	03-4 DO YOU PHYSICALLY ALIGN ANTENNAS?	2.4	.9	4.5	.0	.0	.0	.0	1.8
Q 928	03-5 DO YOU ELECTRICALLY ALIGN ANTENNAS?	.0	.9	9.1	.0	.0	.0	.0	1.8
Q 929	03-6 DO YOU TROUBLESHOOT TO ANTENNAS?	4.8	.9	18.2	16.7	.0	.0	.0	1.8
Q 930	03-7 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS?	2.4	.9	13.6	.0	.0	.0	.0	1.8
Q 931	03-8 DO YOU REMOVE OR INSTALL ANTENNAS?	2.4	1.9	.0	.0	.0	.0	.0	1.8
Q 932	03-9 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS?	.0	.9	.0	.0	.0	.0	.0	1.8
Q 933	03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES?	2.4	.0	.0	.0	.0	.0	.0	1.8
Q 934	03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES?	2.4	.0	.0	.0	.0	.0	.0	1.8
Q 935	03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	1.8
Q 936	03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS RESISTIVE LOADS TO THE GENERATOR?	2.4	.0	.0	.0	.0	.0	.0	1.8
Q 937	03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR?	9.5	1.9	.0	.0	3.8	6.7	.0	1.8
Q 938	03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR?	4.9	.9	.0	.0	.0	.0	.0	1.8
Q 939	03-16 DO YOU WORK WITH HERTZ BASIC ANTENNAS?	.0	.9	18.2	.0	.0	.0	1.2	.0
Q 940	03-17 DO YOU WORK WITH MARCONI BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0

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0	941	03-18	DO	YOU	WORK	WITH	RHOMBIC	BASIC	ANTENNAS?
0	942	03-19	DO	YOU	WORK	WITH	DIPOLE	BASIC	ANTENNAS?
0	943	03-20	DO	YOU	WORK	WITH	SCIMITAR	BASIC	ANTENNAS?
0	944	03-21	DO	YOU	WORK	WITH	PARABOLIC	BASIC	ANTENNAS?
0	945	03-22	DO	YOU	WORK	WITH	GROUND PLANE	BASIC	ANTENNAS?
0	946	03-23	DO	YOU	WORK	WITH	FOLDED DIPOLE	BASIC	ANTENNAS?
0	947	03-24	DO	YOU	WORK	WITH	BROADSIDE	ARRAYS?	
0	948	03-25	DO	YOU	WORK	WITH	END-FIRE	ARRAYS?	
0	949	03-26	DO	YOU	WORK	WITH	CARDIOID	ARRAYS?	
0	950	03-27	DO	YOU	WORK	WITH	COLLINEAR	ARRAYS?	
0	951	03-28	DO	YOU	WORK	WITH	PHASE	ARRAYS?	

0 952 03-29 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?

0 953 03-30 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?
ANTENNAS?

0 954 03-31 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC ANTENNAS?
RADIATION FIELDS WHEN WORKING WITH ANTENNAS?

0 955 03-32 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?
RADIATION FIELDS WHEN WORKING WITH ANTENNAS?

0 956 03-33 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) ANTENNAS? AND MAGNETIC (M) COMPONENTS IN ANTENNA RADIATION?

0 957 03-34 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (M) COMPONENTS IN ANTENNA RADIATION?

0 958 03-35 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?

0 959 03-36 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?
001 ARIZEN2

0 960 03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS
POLARIZED?
03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS
POLARIZED?

0 961 03-36 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY
YOU WORK ON?

TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?

Q63-39 DO THE ANTENNA ARRAYS YOU ELEMENTS SERVING AS DIRECTORS?

063 03-40 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS? DONUT

00 964 03-41 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T
KNOW WHAT KIND OF ELEMENTS
00 965 03-42 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?

0 965 03-42 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?

0 967 03-44 DO YOU WORK WITH ROTARY ANTENNA ARRAYS?
0 968 03-45 DO YOU WORK WITH ROTARY ANTENNA ARRAYS?

P TRANSMISSION LINES (P1), WAVEGUIDES AND CAVITY RESONATORS (P2). MICROWAVE AMPLIFIERS AND OSCILLATORS (P3)

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P 969	PI-1	IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES? (DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES.) IF NO, GO TO ITEM P2-1; IF YES, CONTINUE.	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P 970	PI-2	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE COPPER LOSS OR "I SUB 2 P" LOSS IN TRANSMISSION LINES?	2.4	.9	.0	.0	11.5	.0	3.7	.0
P 971	PI-3	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES?	2.4	.9	.0	.0	6.4	.0	.0	.0
P 972	PI-4	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE RADIATION LOSS?	2.4	.9	.0	.0	5.1	.0	1.2	.0
P 973	PI-5	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE DIELECTRIC LOSS?	2.4	.9	.0	.0	7.7	.0	5.0	.0
P 974	PI-6	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE LEAKAGE LOSSES?	4.8	.9	.0	.0	15.4	.0	5.0	.0
P 975	PI-7	WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE FARADAY SHIELD?	2.4	.9	.0	.0	2.6	.0	1.2	.0
P 976	PI-8	DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES?	14.3	11.3	.0	.0	38.5	20.0	26.2	.0
P 977	PI-9	DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES?	9.5	6.6	.0	.0	25.6	20.0	12.5	.0
P 978	PI-10	DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES?	7.1	4.7	.0	.0	24.4	13.3	10.0	.0
P 979	PI-11	DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES?	9.5	4.7	.0	.0	11.5	6.7	8.7	1.8
P 980	PI-12	DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES?	7.1	.0	.0	.0	6.4	.0	3.7	.0
P 981	PI-13	DO YOU TROUBLESHOOT TRANSMISSION LINES?	11.9	8.5	.0	.0	38.5	20.0	23.7	.0
P 982	PI-14	DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)?	4.8	7.5	.0	.0	17.9	13.3	13.7	1.8
P 983	PI-15	DO YOU SELECT APPROPRIATE TRANSMISSION LINE TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS?	7.1	1.9	.0	.0	10.3	.0	5.0	.0
P 984	PI-16	DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS?	9.5	4.7	.0	.0	20.5	13.3	11.2	.0
P 985	PI-17	DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?	2.4	.0	.0	.0	.0	.0	1.2	.0
P 986	PI-18	DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?	2.4	.0	.0	.0	.0	.0	1.2	.0
P 987	PI-19	DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS?	2.4	.0	.0	.0	1.3	6.7	1.2	.0
P 988	PI-20	DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS?	7.1	2.8	.0	.0	19.2	6.7	10.0	.0
P 989	PI-21	DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING?	.0	.0	.0	.0	2.6	.0	3.7	.0
P 990	PI-22	DO YOU USE OR REFER TO THE TERM "CHARACTERISTIC IMPEDANCE (Z0)" OF TRANSMISSION LINES?	4.8	.0	.0	.0	11.5	.0	5.0	.0
P 991	PI-23	DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES?	.0	.0	.0	.0	5.1	.0	1.2	.0

D TSK	TITLES	306 (M)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P 992	P1-24 DO YOU USE OR REFER TO THE TERM CUT OFF FREQUENCY OF TRANSMISSION LINES?	2.4	1.9	.0	.0	6.4	.0	1.2	.0
P 993	P2-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (M) OF TRANSMISSION LINES?	2.4	.0	.0	.0	.0	.0	1.2	.0
P 994	P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES?	2.4	.9	.0	.0	2.6	.0	.0	.0
P 995	P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTHS FOR GIVEN FREQUENCIES?	2.4	.0	.0	.0	1.3	.0	2.5	.0
P 996	P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES?	4.8	.0	.0	.0	7.7	6.7	2.5	.0
P 997	P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES?	4.8	1.9	.0	.0	16.7	6.7	5.0	.0
P 998	P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES?	4.8	2.8	.0	.0	12.8	6.7	2.5	.0
P 999	P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING?	2.4	1.9	.0	.0	7.7	6.7	6.3	.0
P1000	P2-1 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM P3-1; IF YES, CONTINUE.	2.4	.0	.0	.0	1.3	.0	2.5	1.8
P1001	P2-2 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	1.2	1.8
P1002	P2-3 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1003	P2-4 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1004	P2-5 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1005	P2-6 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1006	P2-7 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	1.8
P1007	P2-8 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS?	.0	.0	.0	.0	.0	.0	.0	1.8
P1008	P2-9 DO YOU REMOVE OR INSTALL DUMMY LOADS?	.0	.0	.0	.0	.0	.0	.0	1.8
P1009	P2-10 DO YOU REMOVE OR INSTALL E BENDS?	.0	.9	.0	.0	.0	.0	.0	.0
P1010	P2-11 DO YOU REMOVE OR INSTALL OTHER BENDS?	.0	.0	.0	.0	.0	.0	.0	.0
P1011	P2-12 DO YOU REMOVE OR INSTALL CHOKES JOINTS?	.0	.9	.0	.0	.0	.0	.0	1.8
P1012	P2-13 DO YOU REMOVE OR INSTALL ROTATING JOINTS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1013	P2-14 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1014	P2-15 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1015	P2-16 DO YOU REMOVE OR INSTALL DUPLEXERS OR MIXERS?	.0	.0	.0	.0	1.3	.0	1.2	1.8
P1016	P2-17 DO YOU REMOVE OR INSTALL WAVEGUIDE SHUTTERS?	.0	.9	.0	.0	1.3	.0	.0	1.8
P1017	P2-18 DO YOU REMOVE OR INSTALL TRANSMIT (TR) OR ANTITRANSMIT (ATR) TUBES?	.0	.0	.0	.0	1.3	.0	.0	.0
P1018	P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES?	2.4	.0	.0	.0	1.3	6.7	.0	.0
P1019	P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES?	2.4	.0	.0	.0	1.3	6.7	1.2	.0
P1020	P2-21 DO YOU USE OR REFER TO "C" WALL OF WAVEGUIDES?	4.8	.0	.0	.0	.0	6.7	1.2	1.8
P1021	P2-22 DO YOU USE OR REFER TO CUT OFF FREQUENCY OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	1.8
P1022	P2-23 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	.0
P1023	P2-24 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	.0
P1024	P2-25 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS?	2.4	.0	.0	.0	.0	.0	.0	.0

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306 (P)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P1025	P2-26 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS?	2.4	.0	.0	.0	.0	.0
P1026	P2-27 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS?	.0	.0	.0	.0	.0	.0
P1027	P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OR .7 WAVELENGTHS OF THE OPERATING FREQUENCY?	.0	.0	.0	.0	.0	.0
P1028	P2-29 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 AS AN AVERAGE?	.0	.0	.0	.0	.0	.0
P1029	P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION?	.0	.0	.0	.0	.0	.0
P1030	P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES?	2.4	.0	.0	.0	.0	.0
P1031	P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0
P1032	P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0
P1033	P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0
P1034	P2-35 DO YOU WORK WITH HIGH POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	1.3	.0	1.8
P1035	P2-36 DO YOU WORK WITH LOW POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	1.3	.0	1.8
P1036	P2-37 DO YOU WORK WITH LOOP ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	1.3	.0	1.8
P1037	P2-38 DO YOU WORK WITH APERTURES (WINDOWS OR IRISES) ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	1.8
P1038	P2-39 DO YOU WORK WITH CHOKES JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	1.3	.0	.0
P1039	P2-40 DO YOU WORK WITH ROTATING JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	1.3	.0	.0
P1040	P2-41 DO YOU WORK WITH JOINTS IN WAVEGUIDES OR CAVITY RESONATORS BUT DON'T KNOW WHICH KIND?	.0	.0	.0	1.3	.0	1.8
P1041	P2-42 DO YOU TUNE CAVITY RESONATORS USING ELECTRICAL METHODS?	2.4	.0	.0	.0	.0	1.8
P1042	P2-43 DO YOU TUNE CAVITY RESONATORS USING MECHANICAL METHODS?	2.4	.0	.0	.0	.0	1.8
P1043	P2-44 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS?	2.4	.0	.0	.0	.0	1.8
P1044	P3-1 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.	2.4	.0	.0	.0	.0	2.5
P1045	P3-2 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	.0	.9	.0	.0	6.7	.0

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P1046	P3-3 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	306 71 (M)	306 72 (M)	316 70F (M)	125 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P1047	P3-4 DO YOU USE OR REFER TO LEAD INDUCTANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	2.4	.9	.0	.0	.0	6.7	1.2	1.8
P1048	P3-5 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	2.4	.9	.0	.0	.0	6.7	1.2	1.8
P1049	P3-6 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION?	2.4	1.9	.0	.0	1.3	.0	.0	1.8
P1050	P3-7 DO YOU USE OR REFER TO ELECTRON BUNCHING?	7.1	1.9	.0	.0	1.3	.0	1.2	.0
P1051	P3-8 DO YOU WORK WITH TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	6.7	.0	.0
P1052	P3-9 DO YOU WORK WITH THREE-CAVITY KLYSTRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1053	P3-10 DO YOU WORK WITH REFLEX KLYSTRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1054	P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1055	P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1056	P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0
P1057	P3-14 DO YOU WORK WITH MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1058	P3-15 DO YOU WORK WITH BACKWARD WAVE OSCILLATORS (BWO)?	.0	.0	.0	.0	.0	.0	.0	.0
P1059	P3-16 DO YOU INSPECT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1060	P3-17 DO YOU CLEAN KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	.0	.0
P1061	P3-18 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY?	.0	.0	.0	.0	.0	.0	.0	.0
P1062	P3-19 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY?	.0	.0	.0	.0	.0	.0	.0	.0
P1063	P3-20 DO YOU PERFORM OPERATIONAL CHECKS ON KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1064	P3-21 DO YOU TROUBLESHOOT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	4.8	.0	.0	.0	.0	.0	.0	.0
P1065	P3-22 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRONS OR TWT'S?	.0	.0	.0	.0	.0	.0	.0	.0
P1066	P3-23 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0
P1067	P3-24 DO YOU INSPECT PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	.0	.0	.0	.0
P1068	P3-25 DO YOU CLEAN PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1069	P3-26 DO YOU ADJUST PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1070	P3-27 DO YOU TUNE PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1071	P3-28 DO YOU PERFORM OPERATIONAL CHECKS ON PARAMETRIC AMPLIFIERS?	2.4	.9	.0	.0	2.6	.0	1.2	.0
P1072	P3-29 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	2.5	.0
P1073	P3-30 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.6	.0	1.2	.0
P1074	P3-31 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS?	.0	.0	.0	.0	2.6	.0	1.2	.0
P1075	P3-32 DO YOU INSPECT MAGNETRONS?	2.4	.9	.0	.0	.0	.0	.0	1.8
P1076	P3-33 DO YOU CLEAN MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	.0	.0
P1077	P3-34 DO YOU ADJUST MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	1.2	.0
P1078	P3-35 DO YOU TUNE MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	.0	.0
P1079	P3-36 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS?	4.8	1.9	.0	.0	.0	.0	.0	1.8
P1080	P3-37 DO YOU TROUBLESHOOT MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	1.8

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D TSK TITLES

306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P1081 P3-38 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRONS?	.0	.0	.0	.0	.0	.0	1.8
P1082 P3-39 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS?	.0	.0	.0	.0	.0	.0	1.8
P1083 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1084 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1085 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	2.4	.0	.0	.0	.0	.0	.0
P1086 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FEEDBACK LOOP COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	1.3	.0	.0
P1087 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF DRIFT SPACE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	1.3	.0	.0
P1088 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	2.4	.0	.0	.0	1.3	.0	.0
P1089 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	1.3	.0	.0
P1090 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	1.3	.0	.0
P1091 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	1.3	.0	.0
P1092 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REPELLER (REFLECTOR) PLATE COMPONENTS OF REFLEX KLYSTRONS?	2.4	.0	.0	.0	1.3	6.7	.0
P1093 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID COMPONENTS OF REFLEX KLYSTRONS?	4.8	.0	.0	.0	1.3	6.7	.0
P1094 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID CAVITY GAP COMPONENTS OF REFLEX KLYSTRONS?	4.8	.0	.0	.0	1.3	6.7	.0
P1095 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF RESONANT CAVITY COMPONENTS OF REFLEX KLYSTRONS?	4.8	.0	.0	.0	1.3	.0	.0
P1096 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNETIC COUPLING LOOP COMPONENTS OF REFLEX KLYSTRONS?	2.4	.0	.0	.0	1.3	.0	.0
P1097 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF REFLEX KLYSTRONS?	2.4	.0	.0	.0	1.3	.0	.0
P1098 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF REFLEX KLYSTRONS?	2.4	.0	.0	.0	1.3	.0	.0
P1099 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF OUTPUT LEAD COMPONENTS OF REFLEX KLYSTRONS?	2.4	.9	.0	.0	1.3	.0	.0
P1100 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.0	.0
P1101 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TRAVELING-WAVE TUBES?	4.8	.0	.0	.0	.0	.0	.0
P1102 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MODULATOR GRID COMPONENTS OF TRAVELING-WAVE TUBES?	4.8	.0	.0	.0	.0	.0	.0
P1103 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ANODE COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.0	.0
P1104 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF HELIX COMPONENTS OF TRAVELING-WAVE TUBES?	4.8	.0	.0	.0	.0	.0	.0
P1105 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR COMPONENTS OF TRAVELING-WAVE TUBES?	4.8	.0	.0	.0	.0	.0	.0

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D TSK	TITLES	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P1106	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.0	.0	.0
P1107	P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.0	.0	.0
P1108	P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	.0	.0
P1109	P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	.0	.0
P1110	P3-67 DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	7.1	.0	.0	.0	1.3	.0	.0	.0
P1111	P3-68 DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	4.8	.0	.0	.0	1.3	.0	.0	.0
P1112	P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	.0	.0
P1113	P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	1.2	.0
P1114	P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1115	P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1116	P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1117	P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1118	P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1119	P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1120	P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	.0

0 REGISTERS (Q1), STORAGE DEVICES (Q2), DIGITAL-TO-ANALOG AND
DIGITAL-TO-DIGITAL CONVERTERS (Q3)

Q1121	Q1-1 DO YOU USE OR REFER TO STORAGE RESISTERS?	69.0	32.1	9.1	33.3	9.0	.0	1.2	50.9
Q1122	Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?	69.0	34.9	.0	33.3	3.8	.0	.0	52.7
Q1123	Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS?	66.7	34.0	.0	33.3	3.8	.0	.0	58.2
Q1124	Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE REGISTERS?	66.7	31.1	.0	33.3	3.8	.0	.0	58.2
Q1125	Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTER CIRCUITS?	66.7	29.2	.0	33.3	2.6	.0	1.2	52.7
Q1126	Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?	61.0	25.5	.0	33.3	2.6	6.7	1.2	50.9
Q1127	Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED?	59.5	28.3	.0	33.3	2.6	6.7	1.2	49.1

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Q1128	Q2-1 DO YOU WORK WITH STORAGE DEVICES IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q3-1; IF YES, CONTINUE.	64.3	27.4	22.7	66.7	19.2	6.7	3.7	23.0
Q1129	Q2-2 DO YOU USE OR REFER TO DELAY LINES?	16.7	7.5	.0	.0	1.3	.0	.0	5.5
Q1130	Q2-3 DO YOU USE OR REFER TO MAGNETIC CORES OR BIMAGS?	57.1	6.6	4.5	16.7	1.3	.0	.0	1.8
Q1131	Q2-4 DO YOU USE OR REFER TO MAGNETIC DRUMS?	7.1	5.7	4.5	33.3	5.1	.0	.0	3.6
Q1132	Q2-5 DO YOU USE OR REFER TO MAGNETIC TAPES?	0.5	17.9	13.6	16.7	15.4	.0	1.2	10.9
Q1133	Q2-6 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OF MEMORY SYSTEMS?	33.3	9.4	4.5	33.3	9.0	.0	1.2	10.9
Q1134	Q2-7 DO YOU USE OR REFER TO STORAGE CAPACITY OF MEMORY SYSTEMS?	45.2	18.9	9.1	33.3	14.1	.0	.0	12.7
Q1135	Q2-8 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS?	28.6	10.4	4.5	16.7	7.7	.0	.0	7.3
Q1136	Q2-9 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES?	14.3	8.5	.0	16.7	1.3	.0	.0	9.1
Q1137	Q2-10 DO YOU USE OR REFER TO MAGNETIC DISKS?	0.5	8.5	4.5	66.7	3.8	.0	.0	9.1
Q1138	Q2-11 DO YOU USE OR REFER TO THIN FILMS?	.0	.0	.0	.0	.0	.0	.0	3.6
Q1139	Q2-12 DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?	31.0	17.0	9.1	33.3	7.7	.0	.0	18.2
Q1140	Q2-13 DO YOU USE OR REFER TO BUBBLE MEMORIES?	.0	.9	4.5	16.7	1.3	.0	.0	1.8
Q1141	Q2-14 DO YOU USE OR REFER TO PUNCH CARDS?	47.6	11.3	.0	16.7	1.3	.0	1.2	14.5
Q1142	Q2-15 DO YOU USE OR REFER TO PAPER TAPES?	50.0	19.8	9.1	66.7	3.8	.0	1.2	10.9
Q1143	Q2-16 DO YOU USE OR REFER TO RANDOM ACCESS MEMORIES (RAM)?	35.7	24.5	9.1	33.3	14.1	.0	.0	18.2
Q1144	Q2-17 DO YOU USE OR REFER TO READ ONLY MEMORIES (ROM)?	19.0	23.6	9.1	16.7	14.1	.0	.0	16.4
Q1145	Q2-18 DO YOU USE OR REFER TO PROGRAMMABLE READ ONLY MEMORIES (PROM)?	16.7	15.1	4.5	.0	11.5	.0	.0	16.4
Q1146	Q2-19 DO YOU USE OR REFER TO TRANSFORMER READ ONLY STORAGE (TROS)?	.0	1.9	.0	.0	.0	.0	.0	5.5
Q1147	Q2-20 DO YOU USE OR REFER TO CAPACITY READ ONLY STORAGE (CROS)?	.0	1.9	.0	.0	1.3	.0	.0	5.5
Q1148	Q2-21 DO YOU INSPECT STORAGE DEVICES?	50.0	16.0	9.1	33.3	11.5	.0	.0	18.2
Q1149	Q2-22 DO YOU CLEAN STORAGE DEVICES?	42.9	14.2	4.5	16.7	11.5	.0	1.2	14.5
Q1150	Q2-23 DO YOU ALIGN STORAGE DEVICES?	11.9	7.5	4.5	16.7	1.3	.0	1.2	10.9
Q1151	Q2-24 DO YOU ADJUST STORAGE DEVICES?	11.9	6.6	.0	16.7	2.6	.0	1.2	12.7
Q1152	Q2-25 DO YOU TROUBLESHOOT MEMORY SYSTEM STORAGE DEVICES?	54.8	14.2	4.5	16.7	11.5	.0	1.2	20.0
Q1153	Q2-26 DO YOU REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS OF STORAGE DEVICES?	38.1	15.1	.0	33.3	12.8	.0	1.2	18.2
Q1154	Q2-27 DO YOU TRACE SIGNAL FLOW IN STORAGE DEVICES USING LOGIC DIAGRAMS OR SCHEMATICS?	47.6	15.1	.0	33.3	2.6	.0	.0	18.2
Q1155	Q3-1 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS OR ANALOG-TO-DIGITAL (A/D) CONVERTERS? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.	26.2	4.7	.0	.0	14.1	.0	3.7	49.1
Q1156	Q3-2 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES?	4.9	1.9	.0	.0	1.3	.0	.0	18.2
Q1157	Q3-3 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS?	2.4	.9	.0	.0	2.6	.0	.0	16.4
Q1158	Q3-4 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS?	7.1	.9	.0	.0	1.3	.0	.0	12.7
Q1159	Q3-5 DO YOU PERFORM TASKS OR SAMPLE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	7.1	.9	.0	.0	5.1	.0	.0	25.5

Q TSK TITLES

Q1160 Q3-6 DO YOU PERFORM TASKS ON HOLD FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1161 Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1162 Q3-8 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS BUT DON'T KNOW WHICH FUNCTION?

Q1164 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?

Q1165 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?

Q1166 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?

Q1167 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?

Q1168 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?

Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?

Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (D/A) CONVERTERS?

Q1171 Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?

Q1172 Q3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?

Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?

Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?

Q1175 Q3-21 WAS THE COMPUTER OR LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT DUTIES?

Q1176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A "D" PREFIX?

PHANTASTRON (R1), SCHMITT TRIGGERS (R2), CABLE FABRICATION (R3)

Q1177 Q1-1 DO YOU WORK WITH PHANTASTRON CIRCUITRY? IF NO, GO TO ITEM R2-1. IF YES, CONTINUE

Q1178 Q1-2 PHANTASTRON CIRCUITRY IS VARIABLE-DELAY APPLICATIONS IN MY JOB.

Q1179 Q1-3 PHANTASTRON CIRCUITRY IS SEARCH-LOCK AUTOMATIC FREQUENCY CONTROLS (AF) APPLICATIONS IN MY JOB.

Q1180 Q1-4 PHANTASTRON CIRCUITRY HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.

306	306	316	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70	(M)
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
7.1	.9	.0	.0	2.6	.0	.0	.0	25.5
11.9	.9	.0	.0	3.8	.0	.0	.0	23.6
14.3	.9	.0	.0	3.8	.0	.0	.0	21.8
2.4	.0	.0	.0	5.1	.0	1.2	10.9	
7.1	1.9	.0	.0	1.3	.0	.0	27.3	
9.5	.9	.0	.0	1.3	.0	.0	27.3	
14.3	.9	.0	.0	1.3	.0	.0	25.5	
16.7	1.9	.0	.0	2.6	.0	.0	29.1	
.0	.9	.0	.0	.0	.0	.0	21.8	
19.0	2.8	.0	.0	5.1	.0	1.2	30.9	
19.0	3.8	.0	.0	6.4	.0	1.2	29.1	
11.0	1.9	.0	.0	12.8	.0	.0	21.8	
14.3	1.9	.0	.0	11.5	.0	1.2	14.5	
11.9	3.8	.0	.0	10.3	.0	1.2	20.0	
16.7	4.7	.0	.0	7.7	6.7	2.5	27.3	
11.9	.9	.0	.0	1.3	.0	1.2	7.3	
.0	.0	.0	.0	.0	.0	.0	1.8	
2.4	.0	.0	.0	.0	6.7	.0	9.1	
2.4	.0	.0	.0	.0	6.7	.0	5.5	
.0	.0	.0	.0	.0	.0	.0	5.5	
2.4	.0	.0	.0	.0	6.7	.0	7.3	

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U TASK	TITLES	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 (M)	362 73 (M)	362 74 (M)	918 70 (M)
R1181	R1-5 PHANTASTRON CIRCUITRY HAS BISTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	4.8	.0	.0	.0	.0	6.7	.0	7.3
R1182	R1-6 PHANTASTRON CIRCUITRY HAS FREE-RUNNING MULTIVIBRATORS APPLICATIONS IN MY JOB.	4.8	.0	.0	.0	.0	6.7	.0	7.3
R1183	R2-1 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS? IF NO, GO TO ITEM P3-1; IF YES, CONTINUE.	59.5	26.4	.0	16.7	1.3	13.3	.0	49.1
R1184	R2-2 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS?	57.1	21.7	.0	16.7	1.3	6.7	.0	45.5
R1185	R2-3 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS?	57.1	23.6	.0	16.7	1.3	6.7	.0	49.1
R1186	R3-1 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES?	19.0	22.6	.0	33.3	25.6	13.3	25.0	49.1
R1187	R3-2 DO YOU FABRICATE COAXIAL CABLES?	19.0	10.4	.0	16.7	10.3	.0	5.0	50.9

S INPUT/OUTPUT (PERIPHERAL) DEVICES (S1), PHOTO SENSITIVE DEVICES (S2), SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) (S3)

S1188	S1-1 DO YOU WORK WITH INPUT OR OUTPUT DEVICES ON YOUR PRESENT JOB? IF NO, GO TO ITEM S7-1; IF YES, CONTINUE.	73.8	60.4	54.5	66.7	30.8	6.7	7.5	38.2
S1189	S1-2 DO YOU USE OR REFER TO KEYBOARDS OR TELETYPEWRITERS?	66.7	62.3	27.3	83.3	25.6	6.7	5.0	32.7
S1190	S1-3 DO YOU USE OR REFER TO PRINTERS?	73.8	61.3	31.8	83.3	25.6	6.7	3.7	49.0
S1191	S1-4 DO YOU USE OR REFER TO TAPE DRIVES (UNITS)?	40.5	27.4	31.8	83.3	19.2	.0	.0	20.0
S1192	S1-5 DO YOU USE OR REFER TO CARD READERS/CARD PUNCHES?	66.7	12.3	9.1	.0	3.8	6.7	1.2	16.4
S1193	S1-6 DO YOU USE OR REFER TO VIDEO DISPLAYS (CRT'S)?	21.4	34.9	9.1	33.3	20.5	6.7	5.0	45.5
S1194	S1-7 DO YOU USE OR REFER TO NIXIE LIGHTS (TUBES)?	7.1	17.0	4.5	.0	.0	.0	.0	36.4
S1195	S1-8 DO YOU USE OR REFER TO LED'S?	59.5	37.7	40.9	66.7	21.8	.0	1.2	50.9
S1196	S1-9 DO YOU USE OR REFER TO LCD'S?	19.0	14.2	4.5	33.3	7.7	.0	.0	43.6
S1197	S1-10 DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?	33.3	13.2	13.6	33.3	3.8	.0	.0	34.5
S1198	S1-11 DO YOU USE OR REFER TO TOGGLE OR PUSH BUTTON SWITCH INPUTS?	71.4	42.5	31.8	50.0	19.2	.0	2.5	45.5
S1199	S1-12 DO YOU USE OR REFER TO INTERFACE ADAPTER UNITS?	42.9	35.8	4.5	66.7	14.1	.0	1.2	30.9
S1200	S1-13 DO YOU USE OR REFER TO TAPE READERS?	71.4	53.8	50.0	83.3	6.4	.0	1.2	12.7
S1201	S1-14 DO YOU USE OR REFER TO TAPE PUNCHES?	71.4	53.8	40.9	50.0	6.4	.0	1.2	9.1
S1202	S2-1 DO YOU WORK WITH PHOTOIODE PHOTO SENSITIVE DEVICES?	59.5	13.2	.0	16.7	1.3	.0	.0	85.5
S1203	S2-2 DO YOU WORK WITH PHOTOTRANSISTOR PHOTO SENSITIVE DEVICES?	31.0	13.2	.0	16.7	1.3	.0	3.7	72.7
S1204	S2-3 DO YOU WORK WITH PHOTOTUBE PHOTO SENSITIVE DEVICES?	2.4	2.8	.0	.0	1.3	.0	2.5	78.2
S1205	S2-4 DO YOU WORK WITH PHOTO-SCR PHOTO SENSITIVE DEVICES?	2.4	2.8	.0	.0	1.3	.0	2.5	38.2
S1206	S2-5 DO YOU WORK WITH PHOTOCELL (PHOTOCONDUCTIVE OR PHOTOVOLTAIC) PHOTO SENSITIVE DEVICES?	57.1	9.4	.0	16.7	2.6	.0	2.5	87.0
S1207	S3-1 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS? IF NO, GO TO ITEM 11-1; IF YES, CONTINUE.	9.5	.9	.0	.0	3.8	13.3	1.2	14.2
S1208	S3-2 DO YOU USE OR REFER TO EXCITATION FREQUENCY CHOPPER COIL ITEMS?	2.4	.0	.0	.0	.0	.0	.0	9.1
S1209	S3-3 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIP CHOPPER COIL ITEMS?	4.8	.0	.0	.0	1.3	6.7	.0	12.7

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D TSK	TITLES	306 (M)	306 71 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
S1210	S3-4 DO YOU MEASURE EXCITATION FREQUENCY CHOPPER COIL ITEMS?	.0	.0	.0	.0	.0	.0	.0	7.3
S1211	S3-5 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIP CHOPPER COIL ITEMS?	2.4	.0	.0	.0	.0	6.7	.0	7.3
S1212	S3-6 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	4.8	.0	.0	.0	.0	6.7	.0	9.1
S1213	S3-7 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	2.4	.0	.0	.0	.0	6.7	.0	12.7
S1214	S3-8 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	4.8	.0	.0	.0	.0	.0	.0	12.7
S1215	S3-9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	4.8	.0	.0	.0	.0	.0	.0	10.9

T	INFRARED (T1), LASERS (T2), DISPLAY TUBES (T3), TELEVISION (T4)								

T1216	T1-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS? IF NO, GO TO ITEM T2-1; IF YES, CONTINUE.	7.1	.0	.0	16.7	1.3	.0	.0	12.7
T1217	T1-2 DO YOU INSPECT INFRARED SYSTEMS?	4.8	.0	.0	16.7	.0	.0	.0	12.7
T1218	T1-3 DO YOU CLEAN INFRARED SYSTEMS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1219	T1-4 DO YOU SERVICE INFRARED SYSTEMS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1220	T1-5 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1221	T1-6 DO YOU OPERATE INFRARED SYSTEMS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1222	T1-7 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS?	4.8	.0	.0	16.7	.0	.0	.0	12.7
T1223	T1-8 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	4.8	.0	.0	16.7	.0	.0	.0	12.7
T1224	T1-9 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1225	T1-10 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	4.8	.0	.0	16.7	.0	.0	.0	12.7
T1226	T1-11 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS?	2.4	.0	.0	16.7	.0	.0	.0	12.7
T1227	T1-12 DO YOU USE OR REFER TO FAR REGIONS?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1228	T1-13 DO YOU USE OR REFER TO INTERMEDIATE REGIONS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1229	T1-14 DO YOU USE OR REFER TO NEAR REGIONS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1230	T1-15 DO YOU USE OR REFER TO MICRONS (M)?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1231	T1-16 DO YOU USE OR REFER TO GRAY BODIES?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1232	T1-17 DO YOU USE OR REFER TO BLACK BODIES?	2.4	.0	.0	.0	.0	.0	.0	9.1
T1233	T1-18 DO YOU USE OR REFER TO ABSORPTION?	2.4	.0	.0	.0	.0	.0	.0	9.1
T1234	T1-19 DO YOU USE OR REFER TO SCATTERING?	2.4	.0	.0	.0	.0	.0	.0	9.1
T1235	T1-20 DO YOU USE OR REFER TO ABSOLUTE ZERO?	2.4	.0	.0	.0	.0	.0	.0	1.8
T1236	T1-21 DO YOU PERFORM TASKS ON FLITZ?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1237	T1-22 DO YOU PERFORM TASKS ON TARGET BUTTONS?	4.8	.0	.0	.0	1.3	.0	.0	5.5
T1238	T1-23 DO YOU PERFORM TASKS ON ERECTOR LENSES?	2.4	.0	.0	.0	1.3	.0	.0	9.1
T1239	T1-24 DO YOU PERFORM TASKS ON OCULAR LENSES?	2.4	.0	.0	.0	.0	6.7	.0	9.1

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T1240	T1-25 DO YOU PERFORM TASKS ON CORRECTION LENSES?	2.4	.0	.0	.0	.0	6.7	1.2	7.3
T1241	T1-26 DO YOU PERFORM TASKS ON FILTERS?	2.4	.0	.0	.0	.0	6.7	1.2	9.1
T1242	T1-27 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS?	2.4	.0	.0	.0	.0	.0	1.2	9.1
T1243	T1-28 DO YOU PERFORM TASKS ON PLANE MIRRORS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1244	T2-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS? IF NO, GO TO ITEM T3-1; IF YES, CONTINUE.	7.1	.0	.0	.0	2.6	.0	.0	10.9
T1245	T2-2 DO YOU INSPECT LASER SYSTEMS?	2.4	.9	.0	.0	.0	.0	.0	5.5
T1246	T2-3 DO YOU CLEAN LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	3.6
T1247	T2-4 DO YOU SERVICE LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1248	T2-5 DO YOU OPERATE LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1249	T2-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1250	T2-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	7.3
T1251	T2-8 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	5.5
T1252	T2-9 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1253	T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	5.5
T1254	T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)?	2.4	.0	.0	.0	.0	.0	.0	3.6
T1255	T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS?	4.8	.0	.0	.0	1.3	.0	.0	3.6
T1256	T2-13 DO YOU USE OR REFER TO GROUND STATE?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1257	T2-14 DO YOU USE OR REFER TO EXCITED STATE?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1258	T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1259	T2-16 DO YOU USE OR REFER TO PHOTONS?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1260	T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSIONS?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1261	T2-18 DO YOU USE OR REFER TO STIMULATED EMISSIONS?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1262	T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE?	2.4	.0	.0	.0	1.3	.0	.0	3.6
T1263	T2-20 DO YOU USE OR REFER TO INVERSION LEVELS?	2.4	.0	.0	.0	1.3	.0	.0	5.5
T1264	T2-21 DO YOU USE OR REFER TO MONOCHROMATIC?	2.4	.0	.0	.0	.0	.0	.0	3.6
T1265	T2-22 DO YOU WORK WITH ACTIVE MATERIALS?	2.4	.0	.0	.0	.0	.0	.0	3.6
T1266	T2-23 DO YOU WORK WITH PUMPING SOURCES?	2.4	.0	.0	.0	.0	.0	.0	3.6
T1267	T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS?	4.8	.0	.0	.0	.0	.0	.0	3.6
T1268	T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1269	T2-26 DO YOU WORK WITH HELICAL FLASHTUBES?	2.4	.0	.0	.0	.0	.0	.0	5.5
T1270	T2-27 DO YOU WORK WITH RUBY MATERIALS?	.0	.0	.0	.0	.0	.0	2.5	5.5
T1271	T2-28 DO YOU WORK WITH HELIUM-NEON MATERIALS?	.0	.9	.0	.0	.0	.0	2.5	5.5
T1272	T2-29 DO YOU WORK WITH HELIUM-XENON MATERIALS?	.0	.9	.0	.0	.0	.0	2.5	3.6
T1273	T2-30 DO YOU WORK WITH XENON MATERIALS?	.0	.9	.0	.0	.0	.0	2.5	3.6
T1274	T2-31 DO YOU WORK WITH CESIUM-HELIUM MATERIALS?	.0	.0	.0	.0	.0	.0	1.2	3.6
T1275	T2-32 DO YOU WORK WITH ARGON MATERIALS?	2.4	.0	.0	.0	.0	.0	1.2	5.5
T1276	T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS MATERIALS?	.0	.0	.0	.0	.0	.0	1.2	3.6
T1277	T2-34 DO YOU WORK WITH GALLIUM ARSENIDE MATERIALS?	.0	.0	.0	.0	.0	.0	2.5	3.6
T1278	T3-1 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE TUBES (DVST), MULTIPLE MODE STORAGE TUBES (MPST), OR SCAN CONVERTER TUBES (SCT)? IF NO, GO TO ITEM T4-1; IF YES, CONTINUE.	2.4	3.8	4.5	.0	3.8	.0	2.5	5.5
T1279	T3-2 DO YOU INSPECT DVST OR MPST?	.0	.9	.0	.0	.0	.0	.0	3.6

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[illegible]

TITLES

Y1260 Y3-3 DO YOU CLEAN DVST OR MMST?

11281 73-4 DO YOU ADJUST OR CALIBRATE OVST OR MMST?

71281	13-4	DO YOU ADJUST OR CALIBRATE DVST OR MMST?
71282	13-5	DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST?

11282 13-3 50 YOU OPERATE SYSTEMS THAT CONTAIN DUST OR
11283 13-4 00 YOU REQUIRE SHOOT DUST OR MMST CIRCUITS?
11284 13-5 00

13-8 08 Y00 TROUBLESHOOT OVST OR HWSI CIRCUITS?
Y3-7 00 REMOVE OR REPI ACE OVST OR HWSI TUBES FROM MAJOR
Y11-04 Y3-7 00

VI284 Y3-7 DO YOU REMOVE OR
RECEIVED OCT 11 1953

ASSEMBLIES OR UNITS?

TY1285 T3-8 DO YOU PERFORM TASKS

VARIOUS ELEMENTS OF DVST?

T1286 Y3-9 D9 YCU PERFORM TASKS 1

VARIOUS ELEMENTS OF MMST?

TT1287 T3-10 DO YOU PERFORM TASKS

VARIOUS ELEMENTS OF SCT?

11:28 13-11 DO YOU PERFORM TASKS ON FLOOD GUNS?

11289 13-12 DO YOU PERFORM TASKS ON WRITE GUNST

11289 13-12 DO YOU PERFORM TASKS ON WRITE GUNS?

DO YOU PERFORM TASKS ON READ GUN?

13-14 DO YOU PERFORM TASKS ON ATTACK GUNS?

11292 13-15 DO YOU PERFORM TASKS ON ERASE GUNS?

TT1293 T3-16 DO YOU PERFORM TASKS ON STORAGE GRIDS?

TT1294 T4-1 IN YOUR PRESENT JOB DO YOU PERFORM ANY

WITH TELEVISION SYSTEMS INCLUDING "LOW LEVEL"

IF NO, GO TO ITEM U1-1; IF YES, CONTINUE

Y1295 T4-2 DO YOU INSPECT TELEVISION SYSTEMS?

Y1296 T4-3 DO YOU CLEAN TELEVISION SYSTEMS?

T1297 T4-4 DO YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?

11297 14-4 00 YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?
11298 14-5 00 YOU OPERATE TELEVISION SYSTEMS?

11298 14-3 DO YOU OPERATE TELEVISION SYSTEMS?
11299 14-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF TV SYSTEMS?

66-711 8-41 00211
AL 30 3511MBSSV B01VM IVOHJ3181001 110A 00 2-41 00211

14-7 03 YOU TROUBLESHOOT MAJOR ASSEMBLIES OF TV SYSTEMS?
Y1300 Y4-3 00 YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENTS?
Y1300 Y4-3 00 YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENTS?

COMPUTERS, MICROPROCESSORS, AND PROGRAMMING (U1), DB AND POWER RATIOS (U2)

U1304 U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF

YES, CONTACT US TODAY!

01-2 TO YOU USE OF REFER TO LEGAL SYSTEMS?
01-3 TO YOU USE OR REFER TO OCTAL SYSTEMS?

DO YOU USE OR REFER TO OPTICAL SYSTEMS?
DO YOU REFER TO RABBIT DETECTORS/GENERATORS?

[illegible]

DO NOT USE OR REFER TO HEXADECIMAL SYSTEMS

11-2-4-8 01 43333 30 350 004 07 9-10 60310

DO YOU USE OF REFER TO FOUR SYSTEMS?

YOU WILL NOT BE ABLE TO REFER TO PRIMARY SYSTEM

U.S. 11-9 7 YOU USE OR AT

1. THE FOLLOWING INFORMATION IS FOR YOUR INFORMATION ONLY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE.

306	316	326	336	346	356	366	376	386	396	406	416	426	436	446	456	466	476	486	496	506	516	526	536	546	556	566	576	586	596	606	616	626	636	646	656	666	676	686	696	706	716	726	736	746	756	766	776	786	796	806	816	826	836	846	856	866	876	886	896	906	916	926	936	946	956	966	976	986	996	1006	1016	1026	1036	1046	1056	1066	1076	1086	1096	1106	1116	1126	1136	1146	1156	1166	1176	1186	1196	1206	1216	1226	1236	1246	1256	1266	1276	1286	1296	1306	1316	1326	1336	1346	1356	1366	1376	1386	1396	1406	1416	1426	1436	1446	1456	1466	1476	1486	1496	1506	1516	1526	1536	1546	1556	1566	1576	1586	1596	1606	1616	1626	1636	1646	1656	1666	1676	1686	1696	1706	1716	1726	1736	1746	1756	1766	1776	1786	1796	1806	1816	1826	1836	1846	1856	1866	1876	1886	1896	1906	1916	1926	1936	1946	1956	1966	1976	1986	1996	2006	2016	2026	2036	2046	2056	2066	2076	2086	2096	2106	2116	2126	2136	2146	2156	2166	2176	2186	2196	2206	2216	2226	2236	2246	2256	2266	2276	2286	2296	2306	2316	2326	2336	2346	2356	2366	2376	2386	2396	2406	2416	2426	2436	2446	2456	2466	2476	2486	2496	2506	2516	2526	2536	2546	2556	2566	2576	2586	2596	2606	2616	2626	2636	2646	2656	2666	2676	2686	2696	2706	2716	2726	2736	2746	2756	2766	2776	2786	2796	2806	2816	2826	2836	2846	2856	2866	2876	2886	2896	2906	2916	2926	2936	2946	2956	2966	2976	2986	2996	3006	3016	3026	3036	3046	3056	3066	3076	3086	3096	3106	3116	3126	3136	3146	3156	3166	3176	3186	3196	3206	3216	3226	3236	3246	3256	3266	3276	3286	3296	3306	3316	3326	3336	3346	3356	3366	3376	3386	3396	3406	3416	3426	3436	3446	3456	3466	3476	3486	3496	3506	3516	3526	3536	3546	3556	3566	3576	3586	3596	3606	3616	3626	3636	3646	3656	3666	3676	3686	3696	3706	3716	3726	3736	3746	3756	3766	3776	3786	3796	3806	3816	3826	3836	3846	3856	3866	3876	3886	3896	3906	3916	3926	3936	3946	3956	3966	3976	3986	3996	4006	4016	4026	4036	4046	4056	4066	4076	4086	4096	4106	4116	4126	4136	4146	4156	4166	4176	4186	4196	4206	4216	4226	4236	4246	4256	4266	4276	4286	4296	4306	4316	4326	4336	4346	4356	4366	4376	4386	4396	4406	4416	4426	4436	4446	4456	4466	4476	4486	4496	4506	4516	4526	4536	4546	4556	4566	4576	4586	4596	4606	4616	4626	4636	4646	4656	4666	4676	4686	4696	4706	4716	4726	4736	4746	4756	4766	4776	4786	4796	4806	4816	4826	4836	4846	4856	4866	4876	4886	4896	4906	491
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SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

P TSK	TITLES	FCPTD2 PAGE 134				OCCUPATIONAL ANALYSIS PROGRAM			
		306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 (M)	362 (M)	362 (M)	918 70 (M)
U1314	U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?	23.8	4.7	.0	16.7	6.4	6.7	.0	12.7
U1315	U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?	16.7	.9	.0	.0	6.4	6.7	.0	5.5
U1316	U1-13 DO YOU USE OR REFER TO STEERING/INFORMATION?	9.5	.9	4.5	.0	2.6	.0	.0	5.5
U1317	U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?	14.3	1.9	.0	16.7	9.0	6.7	.0	12.7
U1318	U1-15 DO YOU USE OR REFER TO JAP-16?	2.4	.0	.0	.0	.0	.0	.0	1.8
U1319	U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	14.3	3.8	.0	16.7	5.1	.0	.0	16.4
U1320	U1-17 DO YOU USE OR REFER TO CONTROL WORDS?	16.7	1.9	.0	16.7	10.3	6.7	.0	10.9
U1321	U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?	14.3	.9	.0	33.3	10.3	6.7	.0	7.3
U1322	U1-19 DO YOU USE OR REFER TO WRAPAROUND WORDS?	7.1	.0	.0	.0	1.3	.0	.0	3.6
U1323	U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?	21.4	1.9	9.1	16.7	12.8	.0	.0	12.7
U1324	U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?	14.3	.0	4.5	16.7	3.8	.0	.0	10.9
U1325	U1-22 DO YOU USE OR REFER TO COMPILERS?	9.5	.0	4.5	.0	.0	.0	.0	9.1
U1326	U1-23 DO YOU USE OR REFER TO ASSEMBLERS?	9.5	.0	.0	.0	.0	6.7	.0	9.1
U1327	U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?	16.7	2.8	.0	.0	7.7	.0	.0	12.7
U1328	U1-25 DO YOU USE OR REFER TO MNEMONICS?	21.4	.9	.0	.0	3.8	6.7	.0	5.5
U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	19.0	2.8	9.1	.0	7.7	6.7	.0	9.1
U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	23.8	2.8	13.6	.0	10.3	6.7	.0	14.5
U1331	U1-28 DO YOU USE OR REFER TO 'ATLAS'?	2.4	.0	.0	.0	.0	.0	.0	.0
U1332	U1-29 DO YOU USE OR REFER TO 'ELAN'?	4.8	.0	.0	.0	.0	.0	.0	.0
U1333	U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?	7.1	.0	.0	.0	6.4	6.7	.0	3.6
U1334	U1-31 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING SYSTEMS?	2.4	.0	.0	.0	2.6	.0	.0	3.6
U1335	U1-32 DO YOU WRITE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	4.8	.0	.0	.0	2.6	.0	.0	.0
U1336	U1-33 DO YOU USE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	11.9	.9	.0	16.7	12.8	.0	.0	7.3
U1337	U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER CONTROL SECTIONS?	21.4	4.7	13.6	.0	9.0	.0	.0	12.7
U1338	U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT SECTIONS?	23.8	4.7	13.6	.0	9.0	6.7	.0	12.7
U1339	U1-36 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT SECTIONS?	23.8	4.7	13.6	.0	9.0	6.7	.0	12.7
U1340	U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR SECTIONS?	21.4	4.7	13.6	.0	10.3	.0	.0	12.7
U1341	U1-38 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTIONS?	23.8	4.7	.0	.0	9.0	.0	.0	9.1
U1342	U1-39 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTIONS?	23.8	4.7	.0	.0	7.7	.0	.0	9.1
U1343	U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT DEVICES?	23.8	3.8	18.2	16.7	11.5	13.3	.0	12.7
U1344	U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE DEVICES?	19.0	2.8	4.5	.0	12.8	13.3	.0	12.7
U1345	U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT DEVICES?	23.8	3.8	13.6	.0	14.1	13.3	.0	12.7
U1346	U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?	19.0	2.8	13.6	.0	11.5	6.7	.0	12.7
U1347	U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR DEVICES?	21.4	3.8	18.2	.0	12.8	6.7	.0	12.7

SHEPPARD ELECTRONIC PRINCIPLES INVENTORY DATA

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D TSM TITLES

U1348	U1-45 DO YOU USE FORTRAN PROGRAMMING LANGUAGE?	306	306	316	316	362	362	362	918
U1349	U1-46 DO YOU USE COBOL PROGRAMMING LANGUAGE?	71	72	70F	72F	71	73	74	70
U1350	U1-47 DO YOU USE RPG PROGRAMMING LANGUAGE?	4.8	1.9	.0	.0	.0	.0	.0	1.8
U1351	U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?	16.7	6.6	.0	.0	5.1	.0	.0	7.3
U1352	U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	7.1	1.9	.0	.0	3.8	.0	.0	9.1
U1353	U1-50 DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	7.1	1.9	.0	.0	3.8	.0	.0	9.1
U1354	U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?	11.9	4.7	.0	.0	6.4	.0	.0	14.5
U1355	U1-52 DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?	14.3	5.7	.0	.0	6.4	.0	.0	14.5
U1356	U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	2.4	.0	.0	.0	1.3	.0	.0	10.9
U1357	U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	11.9	3.8	4.5	.0	3.8	.0	.0	12.7
U1358	U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	7.1	1.9	.0	.0	2.6	.0	.0	7.3
U1359	U1-56 DO YOU USE BIDIRECTIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	11.9	2.8	.0	.0	3.8	.0	.0	9.1
U1360	U1-57 DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?	14.3	4.7	.0	.0	3.8	.0	.0	12.7
U1361	U2-1 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION?	40.5	14.2	9.1	.0	57.7	73.3	18.8	38.2
U1362	U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?	7.1	1.9	.0	.0	1.3	6.7	.0	9.1
U1363	U2-3 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS?	4.8	1.9	.0	.0	2.6	6.7	.0	7.3
U1364	U2-4 DO YOU USE VTVM (OR METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?	47.6	10.4	.0	16.7	57.7	66.7	22.5	38.2
U1365	U2-5 DO YOU USE VTVM (OR METERS) TO CHECK OR ADJUST AUDIO AMPLIFIERS?	33.3	6.6	.0	.0	50.0	73.3	16.2	30.9
U1366	U2-6 DO YOU USE A HP3550 OR 344A TEST SET TO ALIGN AUDIO EQUIPMENT?	26.2	4.7	.0	.0	53.8	26.7	10.0	3.6

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

MINIMUM PERCENT MEMBERS PERFORMING ACROSS AFSC'S

VECTOR TYPE CODES:

- (T) = % TIME SPENT BY ALL MEMBERS
- (M) = % MEMBERS PERFORMING
- (F) = TASK ACTION
- (O) = DICHOTOMOUS SET
- (B) = % TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	MEAN	SD	DESCRIPTION	FACTOR #
1	M	306 X1	71		306X1 AIRMEN 1-48 MONTHS TAFMS	40
2	M	306 X2	44		306X2 AIRMEN 1-48 MONTHS TAFMS	41
3	M	316XOF	26		306XOF AIRMEN 1-48 MONTHS TAFMS	42
4	M	316X2F	8		316X2F AIRMEN 1-48 MONTHS TAFMS	43
5	M	362 X1	47		362X1 AIRMEN 1-48 MONTHS TAFMS	44
6	M	362 X3	33		362X3 AIRMEN 1-48 MONTHS TAFMS	45
7	M	362 X4	27		362X4 AIRMEN 1-48 MONTHS TAFMS	46
8	M	918 XQ	9		918XQ AIRMEN 1-48 MONTHS TAFMS	47
9	-	MINIMA			MINIMUM VALUE OF THE FIRST 8 INPUT VECTORS	

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

MINIMUM PERCENT MEMBERS PERFORMING ACROSS AFSC'S

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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TITLES

D TSK	TITLES	306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN
A 12	A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?	97.2	100.0	100.0	100.0	89.4	93.9	92.6	100.0	89.4
A 22	A2-11 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?	94.4	95.5	96.4	100.0	78.7	78.8	77.8	100.0	77.8
H 467	H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.	84.5	79.5	85.7	87.5	74.5	93.9	96.3	100.0	74.5
A 14	A2-3 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM OHM?	91.5	93.2	89.3	100.0	76.6	75.8	74.1	100.0	74.1
B 61	B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?	93.0	93.2	89.3	87.5	76.6	75.8	70.4	100.0	70.4
A 17	A2-6 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?	93.0	95.5	85.7	100.0	72.3	69.7	70.4	100.0	69.7
E 277	E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.	73.2	68.2	78.6	87.5	72.3	78.8	77.8	100.0	68.2
H 468	H2-2 DO YOU INSPECT POWER SUPPLIES?	84.5	79.5	75.0	87.5	61.7	75.8	74.1	100.0	61.7
E 281	E3-5 DO YOU TROUBLESHOOT RELAYS?	66.2	61.4	78.6	87.5	72.3	75.8	74.1	100.0	61.4
H 471	H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?	84.5	79.5	60.7	75.0	59.6	72.7	70.4	100.0	59.6
B 60	B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?	90.1	90.9	82.1	87.5	70.2	66.7	59.3	100.0	59.3
N 309	N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.	80.3	84.1	85.7	87.5	57.4	60.6	63.0	88.9	57.4
N 813	N1-5 DO YOU READ METER SCALES?	81.7	86.4	85.7	87.5	57.4	57.6	59.3	88.9	57.4
N 816	N1-8 DO YOU ZERO OHMMETERS?	81.7	86.4	78.6	87.5	57.4	57.6	59.3	88.9	57.4
A 1	A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?	85.9	81.8	71.4	87.5	61.7	57.6	51.9	100.0	51.9
B 62	B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?	80.3	86.4	60.7	87.5	59.6	54.5	51.9	100.0	51.9
A 23	A2-12 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM WATTAGE?	63.4	65.9	89.3	87.5	51.1	51.5	51.9	100.0	51.1
E 280	E3-4 DO YOU INSPECT RELAYS?	64.8	54.5	46.4	87.5	72.3	75.8	74.1	100.0	46.4
E 283	E3-7 DO YOU REMOVE OR REPLACE RELAYS?	69.0	61.4	46.4	87.5	59.6	57.6	51.9	100.0	46.4
A 40	A3-16 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?	85.9	84.1	39.3	75.0	70.2	66.7	59.3	100.0	39.3
H 472	H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?	79.9	70.5	71.4	87.5	36.2	48.5	40.7	100.0	36.2
E 284	E3-8 DO YOU PERFORM TASKS OR CONTACTS OF RELAYS?	56.3	47.7	35.7	87.5	74.5	78.8	77.8	100.0	35.7
E 289	E3-17 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	50.7	40.9	64.3	87.5	36.3	33.3	33.3	100.0	33.3
A 29	A3-5 DO YOU MEASURE RESISTORS?	83.1	79.5	32.1	87.5	46.8	45.5	33.3	100.0	32.1
C 112	C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?	88.7	84.1	32.1	87.5	55.3	45.5	37.0	100.0	32.1
C 113	C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?	87.3	81.8	32.1	87.5	46.8	42.4	33.3	100.0	32.1
E 283	E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OF SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.	91.5	90.9	32.1	87.5	72.3	81.8	81.5	100.0	32.1
E 290	E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?	45.1	31.8	64.3	87.5	38.3	33.3	33.3	100.0	31.8

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	306 (M)	306 X2 (M)	316 XOF (M)	139 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 XO (M)	MIN
E 268	E3-12 DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?	50.7	40.9	25.0	75.0	55.3	48.5	48.1	77.8	25.0
N 815	N1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?	52.1	54.5	30.3	25.0	27.7	27.3	29.6	55.6	25.0
E 291	E3-15 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?	33.8	22.7	60.7	87.5	34.0	30.3	33.3	100.0	22.7
E 292	E3-16 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?	35.2	22.7	60.7	87.5	31.9	27.3	29.6	100.0	22.7
A 27	A3-3 DO YOU CLEAN RESISTORS?	70.4	65.9	25.0	75.0	31.9	30.3	22.2	88.9	22.2
C 98	C1-2 DO YOU INSPECT CAPACITORS?	85.9	84.1	25.0	87.5	36.2	33.3	22.2	100.0	22.2
C 101	C1-5 DO YOU TEST CAPACITORS?	80.3	75.0	25.0	75.0	29.8	27.3	22.2	100.0	22.2
C 124	C1-28 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?	78.4	72.7	25.0	75.0	36.2	33.3	22.2	100.0	22.2
C 125	C1-29 DO YOU WORK WITH OTHER FIXED CAPACITORS?	71.8	68.2	25.0	87.5	25.5	27.3	22.2	100.0	22.2
H 470	H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?	76.1	65.9	75.0	87.5	36.2	33.3	22.2	100.0	22.2
A 32	A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIRED WIRES?	60.6	59.1	21.4	62.5	44.7	42.4	37.0	100.0	21.4
A 38	A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?	67.6	63.6	21.4	62.5	31.9	33.3	22.2	100.0	21.4
A 42	A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	57.7	59.1	21.4	50.0	36.2	30.3	25.9	100.0	21.4
A 43	A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	59.2	61.4	21.4	37.5	31.9	30.3	22.2	100.0	21.4
A 45	A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	57.7	61.4	21.4	37.5	36.2	33.3	22.2	100.0	21.4
A 46	A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	54.9	59.1	21.4	50.0	34.0	30.3	25.9	100.0	21.4
E 266	E2-4 DO YOU PERFORM HIGH RELIABILITY SOLDERING?	70.4	56.8	21.4	75.0	59.6	57.6	55.6	88.9	21.4
E 272	E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?	81.7	72.7	21.4	75.0	31.9	30.3	22.2	100.0	21.4
E 278	E3-2 DO YOU ADJUST RELAYS?	36.6	27.3	21.4	75.0	61.7	60.6	55.6	88.9	21.4
E 279	E3-3 DO YOU CLEAN RELAYS?	63.4	50.0	21.4	75.0	72.3	75.8	74.1	100.0	21.4
H 473	H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?	81.7	77.3	21.4	75.0	63.8	84.8	85.2	100.0	21.4
M 764	M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	57.7	70.5	21.4	75.0	34.0	36.4	25.9	77.8	21.4
C 138	C2-13 DO YOU WORK WITH POWER TRANSFORMERS?	74.6	68.2	35.7	75.0	21.3	27.3	22.2	100.0	21.3
N 818	N1-13 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)?	36.6	36.4	25.0	37.5	21.3	21.2	22.2	55.6	21.2
A 37	A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE?	76.1	72.7	25.0	75.0	38.3	33.3	18.5	100.0	18.5
A 47	A3-27 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	56.3	63.6	21.4	37.5	29.8	27.3	18.5	100.0	18.5
A 50	A3-28 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	56.3	59.1	21.4	37.5	34.0	30.3	18.5	100.0	18.5
A 52	A3-29 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	53.5	59.1	21.4	37.5	29.8	24.2	18.5	100.0	18.5
E 14	E1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?	63.4	54.5	47.9	75.0	40.4	33.3	18.5	100.0	18.5
E 18	E2-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) FROM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?	43.7	38.6	21.4	75.0	29.8	30.3	18.5	100.0	18.5

TASKS WITH 50 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS											
DDT	DDT	TITLE	306 X1 (M)	306 X2 (M)	306 X0F (M)	140	USAFOMC (ATC)	RANDOLPH AFB TX	MIN	IMA	OK
C 106	C1-10	DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS?	67.6	63.6	21.4	75.0	25.5	21.2	18.5	100.0	18.5
C 149	C2-24	DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?	78.9	75.0	35.7	75.0	27.7	27.3	18.5	100.0	18.5
E 271	E2-9	DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?	91.5	88.6	25.0	87.5	38.3	30.3	18.5	100.0	18.5
E 294	E3-18	DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?	40.8	36.4	28.6	75.0	27.7	21.2	18.5	100.0	18.5
G 383	G2-1	DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM G3-1; IF YES, CONTINUE.	85.9	84.1	25.0	87.5	25.5	24.2	18.5	100.0	18.5
G 384	G2-2	DO YOU INSPECT TRANSISTORS?	83.1	77.3	25.0	87.5	21.3	24.2	18.5	100.0	18.5
A 51	A3-27	DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	54.9	59.1	17.9	37.5	34.0	30.3	25.9	100.0	17.9
A 56	A3-32	DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	45.1	50.0	17.9	37.5	27.7	21.2	18.5	100.0	17.9
C 127	C2-2	DO YOU INSPECT TRANSFORMERS?	78.9	75.0	17.9	62.5	25.5	30.3	22.2	100.0	17.9
C 128	C2-3	DO YOU CLEAN TRANSFORMERS?	70.4	68.2	17.9	62.5	19.1	21.2	18.5	77.8	17.9
G 385	G2-3	DO YOU CHECK TRANSISTORS?	87.3	81.8	17.9	62.5	21.3	27.3	22.2	100.0	17.9
M 483	M2-17	DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	56.3	45.5	17.9	25.0	23.4	24.2	22.2	66.7	17.9
01136	R3-1	IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES?	18.3	25.0	17.9	62.5	25.5	36.4	44.4	44.4	17.9
N 817	N1-9	DO YOU ZERO AMMETERS?	35.2	38.6	46.4	62.5	19.1	15.2	18.5	66.7	15.2
A 39	A3-15	DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?	40.8	38.6	21.4	62.5	19.1	18.2	14.8	44.4	14.8
A 44	A3-20	DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	45.1	40.9	25.0	50.0	25.5	21.2	14.8	100.0	14.8
A 48	A3-24	DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	47.9	45.5	17.9	37.5	25.5	21.2	14.8	100.0	14.8
A 49	A3-25	DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	30.4	38.6	21.4	37.5	23.4	21.2	14.8	100.0	14.8
A 53	A3-29	DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	45.1	45.5	17.9	37.5	25.5	21.2	14.8	100.0	14.8
A 55	A3-31	DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	49.3	54.5	17.9	37.5	29.8	24.2	14.9	100.0	14.8
A 57	A3-33	DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	46.5	54.5	17.9	37.5	23.4	18.2	14.8	100.0	14.8
C 99	C1-3	DO YOU CLEAN CAPACITORS?	73.2	70.5	17.9	62.5	25.5	24.2	14.8	77.8	14.8
C 102	C1-6	DO YOU DISCHARGE CAPACITORS?	81.7	75.0	17.9	62.5	25.5	24.2	14.8	100.0	14.8
C 109	C1-13	DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS?	45.1	31.8	25.0	87.5	27.7	24.2	14.6	77.8	14.8
E 271	E2-3	DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?	83.1	75.0	28.6	87.5	19.1	18.2	14.8	100.0	14.8
G 342	G1-1	DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.	74.6	63.6	21.4	75.0	23.4	21.2	14.5	100.0	14.4
G 347	G1-2	DO YOU INSPECT DIODES?	60.0	59.1	21.4	75.0	19.1	21.2	14.8	100.0	14.8
G 348	G1-3	DO YOU CHECK DIODES?	73.2	63.6	17.9	62.5	21.3	21.2	14.4	100.0	14.8

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (A1C) RANDOLPH AFB TX

D TSK	TITLES	FCPT03 PAGE				141				MIN			
		306	306	316	316	362	362	362	362	918	X1	X4	X0
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
G 393	G2-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?	84.5	79.5	25.0	87.5	14.9	18.2	14.8	100.0	14.8			
H 488	H2-22 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	50.7	40.9	25.0	62.5	17.0	18.2	14.8	77.8	14.8			
M 765	M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS?	53.5	68.2	21.4	75.0	23.4	24.2	14.8	77.8	14.8			
B 75	B3-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C1-1; IF YES, CONTINUE.	40.8	34.1	14.3	25.0	21.3	21.2	22.2	100.0	14.3			
D 233	D3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.	54.9	40.9	14.3	25.0	19.1	24.2	14.8	100.0	14.3			
H 482	H2-16 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	53.5	43.2	14.3	25.0	21.3	21.2	18.5	88.9	14.3			
H 489	H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS?	62.0	47.7	14.3	25.0	23.4	27.3	22.2	100.0	14.3			
A 13	A2-2 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTROMOTIVE FORCE (EMF)?	46.5	40.9	17.9	12.5	29.8	30.3	22.2	88.9	12.5			
M 778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM N1-1; IF YES, CONTINUE.	83.1	79.5	39.3	12.5	12.8	15.2	14.8	100.0	12.5			
N 814	N1-6 DO YOU EXTEND THE RANGE OF AMMETERS?	39.4	43.2	28.6	12.5	21.3	18.2	18.5	44.4	12.5			
S1188	S1-1 DO YOU WORK WITH INPUT OR OUTPUT DEVICES ON YOUR PRESENT JOB? IF NO, GO TO ITEM S2-1; IF YES, CONTINUE.	74.6	72.7	53.6	37.5	19.1	12.1	14.8	77.8	12.1			
A 33	A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	23.9	25.0	17.9	62.5	14.9	12.1	11.1	88.9	11.1			
A 54	A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	38.0	36.4	21.4	37.5	23.4	18.2	11.1	100.0	11.1			
A 58	A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	36.6	38.6	17.9	37.5	21.3	15.2	11.1	100.0	11.1			
A 59	A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	31.0	31.8	17.9	37.5	19.1	15.2	11.1	100.0	11.1			
B 69	B2-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?	74.6	72.7	35.7	87.5	25.5	27.3	11.1	100.0	11.1			
C 103	C1-7 DO YOU MEASURE CAPACITORS?	54.9	47.7	21.4	75.0	19.1	15.2	11.1	88.9	11.1			
C 144	C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	59.2	54.5	21.4	62.5	14.9	15.2	11.1	100.0	11.1			
C 145	C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	53.5	50.0	21.4	62.5	12.8	12.1	11.1	88.9	11.1			
C 150	C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	50.7	36.4	21.4	62.5	14.9	15.2	11.1	100.0	11.1			
C 151	C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	57.7	47.7	28.6	62.5	12.8	12.1	11.1	100.0	11.1			
C 152	C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	67.6	56.8	28.6	62.5	14.9	12.1	11.1	100.0	11.1			
E 273	E2-11 DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?	59.2	40.9	14.3	50.0	14.9	12.1	11.1	100.0	11.1			

TASKS WITH 30 PERCENT MP ACCROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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D TSK TITLES

306	306	316	316	362	362	362	918	MIN
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
G 394	62-12 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, A2, A3, ETC.?	83.1	77.3	25.0	87.5	14.9	18.2	11.1 100.0 11.1
H 457	H1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS?	77.5	68.2	46.4	100.0	14.9	18.2	11.1 100.0 11.1
H 478	H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?	63.4	54.5	28.6	87.5	14.9	18.2	11.1 100.0 11.1
H 481	H2-15 DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	35.2	25.0	21.4	25.0	17.0	18.2	11.1 77.8 11.1
C 114	C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?	42.3	40.9	10.7	37.5	21.2	24.2	25.9 100.0 10.7
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	46.5	45.5	10.7	12.5	19.1	15.2	11.1 66.7 10.7
S 386	G2-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS?	69.0	61.4	10.7	37.5	12.8	15.2	11.1 100.0 10.7
H 454	H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS?	69.0	56.8	39.3	100.0	10.6	15.2	18.5 100.0 10.6
B 94	B3-20 DO YOU WORK WITH POWER INDUCTORS?	32.4	27.3	14.3	25.0	12.8	9.1	11.1 77.8 9.1
H 769	H2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?	15.5	9.1	17.9	62.5	19.1	21.2	11.1 55.6 9.1
D 243	D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?	35.2	22.7	10.7	12.5	8.5	9.1	11.1 44.4 8.5
H 784	M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?	71.8	77.3	21.4	12.5	8.5	9.1	11.1 100.0 8.5
A 21	A2-10 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELFTRON?	40.8	29.5	28.6	37.5	21.3	18.2	7.4 88.9 7.4
B 65	B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?	16.9	9.1	46.4	75.0	17.0	12.1	7.4 100.0 7.4
B 71	B2-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM WAVE LENGTH IN YOUR PRESENT JOB?	60.6	59.1	35.7	87.5	23.4	18.2	7.4 100.0 7.4
B 76	B3-2 DO YOU INSPECT INDUCTORS?	40.8	31.8	17.9	62.5	8.5	9.1	7.4 100.0 7.4
C 110	C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?	35.2	36.4	14.3	50.0	17.0	9.1	7.4 100.0 7.4
C 130	C2-5 DO YOU TROUBLESHOOT TRANSFORMERS?	60.6	50.0	21.4	37.5	12.8	12.1	7.4 100.0 7.4
C 146	C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	59.2	52.3	17.9	50.0	12.8	12.1	7.4 100.0 7.4
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	46.5	36.4	25.0	62.5	10.6	9.1	7.4 100.0 7.4
E 286	E3-10 DO YOU PERFORM TASKS ON COILS OF RELAYS?	29.6	22.7	14.3	37.5	25.5	15.2	7.4 77.8 7.4
G 155	G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?	66.2	50.0	21.4	75.0	14.9	15.2	7.4 100.0 7.4
G 387	G2-5 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND RESISTANCE MEASUREMENTS?	67.6	61.4	21.4	75.0	8.5	9.1	7.4 100.0 7.4
G 354	G2-8 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS?	69.0	63.6	21.4	75.0	8.5	9.1	7.4 100.0 7.4
H 460	H1-8 DO YOU USE OR REFER TO LED'S/LCC'S COMPONENTS?	57.5	42.2	35.7	75.0	8.5	9.1	7.4 100.0 7.4
H 476	H2-10 DO YOU WORK WITH HALF-WAVE RECTIFIERS?	59.2	50.0	25.0	75.0	14.9	9.1	7.4 100.0 7.4
M 770	M3-2 DO YOU INSPECT MOTORS?	83.1	79.5	35.7	12.5	10.6	9.1	7.4 100.0 7.4
C 122	C1-26 DO YOU WORK WITH VARIABLE CAPACITORS?	26.8	25.0	7.1	25.0	10.6	9.1	7.4 100.0 7.1
C 132	C2-14 DO YOU WORK WITH AUDIO TRANSFORMERS?	22.5	18.2	7.1	12.5	12.8	15.2	11.1 77.8 7.1
D 277	D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?	42.3	25.0	7.1	25.0	17.0	21.2	11.1 100.0 7.1
E 274	E2-12 DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?	54.3	45.5	7.1	25.0	72.3	72.7	74.1 44.4 7.1
E 280	E3-8 DO YOU MONITOR PIAS OUTPUT ON RELAYS?	27.9	15.9	7.1	12.5	25.5	15.2	11.1 44.4 7.1

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS			OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX									
D TSK	TITLES	FCPT03 PAGE 143	306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN	
F 295	F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TPA/SQUELCHERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.		8.5	9.1	7.1	12.5	23.4	30.3	22.2	66.7	7.1	
G 349	G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?		57.7	45.5	7.1	25.0	17.0	15.2	11.1	88.9	7.1	
G 356	G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?		67.6	52.3	7.1	25.0	17.0	15.2	7.4	100.0	7.1	
H 496	H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS OTHER THAN SOLID-STATE?		31.0	31.8	7.1	25.0	12.8	9.1	7.4	55.6	7.1	
H 497	H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?		60.6	52.3	7.1	12.5	19.1	24.2	18.5	100.0	7.1	
M 767	M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS?		39.4	50.0	7.1	25.0	12.8	15.2	18.5	44.4	7.1	
A 3	A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?		16.9	9.1	32.1	75.0	8.5	6.1	7.4	100.0	6.1	
C 155	C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?		29.6	22.7	21.4	62.5	8.5	6.1	7.4	100.0	6.1	
M 766	M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?		45.1	56.8	17.9	62.5	6.4	6.1	7.4	55.6	6.1	
M 781	M3-4 DO YOU OPERATE MOTORS?		77.5	79.5	39.3	12.5	8.5	6.1	7.4	100.0	6.1	
S1198	S1-11 DO YOU USE OR REFER TO TOGGLE OR PUSH BUTTON SWITCH INPUTS?		57.7	47.7	42.9	25.0	10.6	6.1	7.4	66.7	6.1	
A 15	A2-4 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ION?		5.6	6.8	32.1	75.0	6.4	6.1	7.4	88.9	5.6	
A 5	A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $x + 6 = 8$?		8.5	4.5	25.0	62.5	12.8	6.1	7.4	77.8	4.5	
R1187	P3-2 DO YOU FARRICATE COAXIAL CABLES?		16.9	22.7	10.7	37.5	4.3	6.1	7.4	22.2	4.3	
A 36	A3-12 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?		15.5	11.4	17.9	50.0	6.4	6.1	3.7	55.6	3.7	
E 66	P1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE PRESSURE?		23.9	6.8	46.4	50.0	10.6	6.1	3.7	100.0	3.7	
B 74	B2-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?		56.3	52.3	28.6	25.0	10.6	12.1	3.7	100.0	3.7	
P 77	R3-3 DO YOU CLEAN INDUCTORS?		33.8	25.0	17.9	62.5	4.3	6.1	3.7	77.8	3.7	
C 104	C1-6 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?		15.5	18.2	10.7	37.5	8.5	6.1	3.7	33.3	3.7	
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?		42.3	38.6	7.1	25.0	6.4	9.1	3.7	100.0	3.7	
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?		43.7	40.9	14.3	37.5	14.5	9.1	3.7	66.7	3.7	
C 174	C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?		22.5	22.7	10.7	12.5	8.5	6.1	3.7	77.8	3.7	
C 170	C1-1 DO YOU WORK WITH RC, LP, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.		32.4	27.3	7.1	12.5	6.4	6.1	3.7	100.0	3.7	
C 234	D3-2 DO YOU INSPECT FILTER CIRCUITS?		45.1	34.1	7.1	25.0	12.8	15.2	3.7	100.0	3.7	
C 234	D2-5 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?		39.4	22.7	14.3	25.0	6.4	9.1	3.7	100.0	3.7	
F 205	E3-9 DO YOU PERFORM TASKS ON CORES OF RELAYS?		25.4	22.7	7.1	12.5	23.4	12.1	3.7	44.4	3.7	
F 724	F3-1 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G1-1; IF YES, CONTINUE.		61.7	75.0	25.0	87.5	19.1	18.2	3.7	100.0	3.7	

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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D TSK TITLES

306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	IMA *C*
G 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN 538?	40.8	29.5	17.9	62.5	10.6	12.1	3.7	77.8
G 389 G2-7 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?	46.5	34.1	7.1	25.0	4.3	6.1	3.7	100.0
G 390 G2-8 DO YOU USE OR REFER TO HOW FIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?	46.5	34.1	7.1	25.0	4.3	6.1	3.7	88.9
G 391 G2-9 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?	50.7	36.4	17.9	62.5	8.5	9.1	3.7	100.0
H 475 H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?	9.0	9.1	7.1	12.5	12.8	6.1	3.7	55.6
H 484 H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?	43.7	22.7	14.3	50.0	4.3	6.1	3.7	77.8
H 498 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM I1-1; IF YES, CONTINUE.	29.6	13.6	7.1	12.5	21.3	18.2	3.7	100.0
I 582 I3-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.2	6.8	17.9	62.5	6.4	6.1	3.7	55.6
I 583 I3-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.2	6.8	14.3	50.0	4.3	6.1	3.7	55.6
J 597 J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?	15.5	22.7	10.7	25.0	4.3	6.1	3.7	100.0
K 661 K3-2 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?	22.5	9.1	28.6	62.5	4.3	6.1	3.7	66.7
K 672 K3-13 DO YOU ADD BINARY NUMBERS?	26.8	13.6	21.4	62.5	6.4	6.1	3.7	77.8
K 679 K3-20 DO YOU DIVIDE BINARY NUMBERS?	16.9	4.5	7.1	25.0	6.4	6.1	3.7	33.3
K 680 K3-21 DO YOU MULTIPLY BINARY NUMBERS?	16.9	4.5	7.1	25.0	6.4	6.1	3.7	44.4
M 780 M3-3 DO YOU CLEAN OR LUBRICATE MOTORS?	81.7	77.3	14.3	12.5	8.5	6.1	3.7	100.0
C 119 C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?	23.9	25.0	3.6	12.5	14.9	15.2	14.8	66.7
C 137 C2-12 DO YOU WORK WITH AUTOTRANSFORMERS?	8.5	4.5	3.6	12.5	4.3	6.1	3.7	100.0
D 235 D3-3 DO YOU CLEAN FILTER CIRCUITS?	45.1	31.8	3.6	12.5	12.8	15.2	7.4	77.8
D 236 D3-4 DO YOU ALIGN OR ADJUST FILTER CIRCUITS?	23.9	13.6	3.6	12.5	6.4	6.1	3.7	88.9
D 244 D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?	11.3	4.5	3.6	12.5	4.3	6.1	7.4	33.3
E 249 E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.	35.2	20.5	3.6	12.5	6.4	9.1	7.4	88.9
E 253 E1-5 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING?	23.9	15.9	3.6	12.5	4.3	6.1	3.7	66.7
E 255 E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING?	25.4	11.4	3.6	12.5	4.3	6.1	3.7	68.9
E 256 E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING?	23.9	13.6	3.6	12.5	6.4	6.1	3.7	77.8
E 262 E1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?	21.1	13.6	3.6	12.5	6.4	6.1	3.7	77.8
E 276 E2-14 DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF SOLDERING?	16.9	13.6	3.6	12.5	53.2	57.6	70.4	11.1
G 354 G1-14 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?	19.7	9.1	3.6	12.5	6.4	9.1	7.4	66.7
G 360 G1-19 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?	47.9	40.9	3.6	12.5	8.5	12.1	7.4	88.9

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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D TSK	TITLES	FCPT03	PAGE	145	306	316	316	362	362	362	362	918	MIN
					X1 (M)	X2 (M)	X2F (M)	X1 (M)	X3 (M)	X4 (M)	X0 (M)	IMA	MC*
G 374	G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION?	14.1	6.8	3.6	12.5	4.3	6.1	3.7	88.9	3.6			
G 396	G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB B) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 8 PERCENT OF I(SUB E)?	36.6	31.8	3.6	12.5	6.4	6.1	3.7	77.8	3.6			
G 397	G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?	53.5	52.3	3.6	12.5	4.3	6.1	3.7	100.0	3.6			
G 407	G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	29.6	20.5	3.6	12.5	10.6	12.1	7.4	100.0	3.6			
G 409	G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?	14.1	4.5	3.6	12.5	4.3	6.1	3.7	66.7	3.6			
G 410	G3-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	28.2	15.9	3.6	12.5	8.5	12.1	7.4	100.0	3.6			
G 412	G3-6 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	26.8	13.6	3.6	12.5	10.6	12.1	7.4	88.9	3.6			
G 421	G3-15 DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR AMPLIFIERS?	18.3	9.1	3.6	12.5	6.4	6.1	3.7	77.8	3.6			
G 422	G3-16 DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR AMPLIFIERS?	15.5	9.1	3.6	12.5	6.4	6.1	3.7	66.7	3.6			
G 423	G3-17 DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR AMPLIFIERS?	15.5	9.1	3.6	12.5	6.4	6.1	3.7	44.4	3.6			
G 435	G3-20 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	9.9	4.5	3.6	12.5	4.3	6.1	3.7	22.2	3.6			
H 459	H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS?	11.3	13.6	3.6	12.5	6.4	6.1	7.4	22.2	3.6			
H 465	H2-19 DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	33.8	20.5	3.6	12.5	4.3	6.1	3.7	66.7	3.6			
H 466	H2-20 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGES IN YOUR WORK WITH RECTIFIERS?	26.8	20.5	3.6	12.5	4.3	6.1	3.7	88.9	3.6			
H 487	H2-21 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN YOUR WORK WITH RECTIFIERS?	52.1	43.2	3.6	12.5	10.6	15.2	3.7	100.0	3.6			
H 488	H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER?	11.3	6.8	3.6	12.5	4.3	6.1	7.4	44.4	3.6			
I 531	I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORK FREQUENCY DETERMINING DEVICES (FDD)?	28.2	13.6	3.6	12.5	4.3	6.1	3.7	77.8	3.6			
I 534	I1-6 DO YOU WORK WITH A STABLE (FREE RUNNING) MULTIVIBRATORS?	35.2	18.2	3.6	12.5	4.3	6.1	3.7	100.0	3.6			
I 535	I1-7 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?	32.8	15.9	3.6	12.5	4.3	6.1	3.7	100.0	3.6			
M 732	M3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTORS?	81.7	79.5	3.6	12.5	8.5	9.1	7.4	100.0	3.6			
U1304	U2-4 DO YOU USE VTVM (DB METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?	11.3	9.1	3.6	12.5	31.9	30.3	16.5	44.4	3.6			
G 60	G3-6 DO YOU USE OR REFER TO INDUCTANCE?	33.8	27.3	17.9	62.5	6.4	3.0	3.7	100.0	3.0			
H 69	H3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL?	11.3	9.1	3.6	12.5	6.4	3.0	3.7	22.2	3.0			
G 60	G3-14 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	P.5	6.8	10.7	37.5	6.4	3.0	3.7	44.4	3.0			
H 61	H3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?	19.7	18.2	3.6	12.5	8.5	3.0	3.7	77.8	3.0			
G 113	G1-2 DO YOU WORK WITH TRIMMER CAPACITORS?	P.5	6.8	3.6	12.5	4.3	3.0	3.7	77.8	3.0			

TASKS WITH 30 PERCENT MF ACROSS AFSC'S BY TAFMS

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D TASK	TITLES	306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN
G 353 G1-12 DO YOU READ DIODE COLOR CODING?		26.8	18.2	14.3	50.0	4.3	3.0	3.7	22.2	3.0
K 674 K3-15 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD?		23.9	11.4	14.3	50.0	4.3	3.0	3.7	44.4	3.0
N 810 M1-2 DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?		29.6	36.4	14.3	37.5	6.4	3.0	3.7	44.4	3.0
S1189 S1-2 DO YOU USE OR REFER TO KEYBOARDS OR TELETYPEMETERS?		77.5	77.3	14.3	37.5	12.8	3.0	3.7	55.6	3.0
S1190 S1-3 DO YOU USE OR REFER TO PRINTERS?		78.9	77.3	17.9	37.5	12.8	3.0	3.7	77.8	3.0
S1193 S1-6 DO YOU USE OR REFER TO VIDEO DISPLAYS (CRT'S)?		25.4	34.1	7.1	25.0	10.6	3.0	3.7	77.8	3.0
S1199 S1-12 DO YOU USE OR REFER TO INTERFACE ADAPTER UNITS?		36.6	31.8	14.3	25.0	4.3	3.0	3.7	55.6	3.0
K 681 K3-22 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?		12.7	2.3	17.9	50.0	4.3	3.0	3.7	44.4	2.3
U1304 U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF YES, CONTINUE.		21.1	2.3	28.6	37.5	4.3	3.0	3.7	33.3	2.3
U1365 U2-5 DO YOU USE VTVM (DB METERS) TO CHECK OR ADJUST AUDIO AMPLIFIERS?		7.0	2.3	3.6	12.5	19.1	21.2	7.4	33.3	2.3
C 143 C2-18 DO YOU WORK WITH CONTROL TRANSFORMERS?		14.1	6.8	7.1	12.5	2.1	3.0	3.7	66.7	2.1
P 214 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION?		22.5	18.2	3.6	12.5	2.1	3.0	3.7	88.9	2.1
D 216 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?		16.9	13.6	3.6	12.5	2.1	3.0	3.7	55.6	2.1
D 218 D1-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?		18.3	13.6	3.6	12.5	2.1	3.0	3.7	66.7	2.1
D 246 D3-14 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?		8.5	2.3	3.6	12.5	2.1	3.0	3.7	22.2	2.1
S 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?		50.7	36.4	7.1	25.0	2.1	3.0	3.7	77.8	2.1
C 376 G1-35 DO YOU USE OR REFER TO THE IC:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES?		16.9	6.8	3.6	12.5	2.1	3.0	3.7	55.6	2.1
G 392 G2-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUB C80) IN A TRANSISTOR?		23.9	25.0	7.1	25.0	2.1	3.0	3.7	77.8	2.1
K 660 K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?		18.3	6.8	57.1	62.5	2.1	3.0	3.7	55.6	2.1
K 675 K3-16 DO YOU ADD OCTAL NUMBERS?		16.9	6.8	21.4	25.0	2.1	3.0	3.7	44.4	2.1
K 676 K3-17 DO YOU SUBTRACT OCTAL NUMBERS?		16.9	6.8	17.9	25.0	2.1	3.0	3.7	44.4	2.1
K 677 K3-18 DO YOU ADD HEXADECIMAL NUMBERS?		11.3	6.8	17.9	62.5	2.1	3.0	3.7	44.4	2.1
L 718 L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.		31.0	18.2	3.6	12.5	2.1	3.0	3.7	66.7	2.1
M 754 M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?		27.9	11.4	3.6	12.5	2.1	3.0	3.7	88.9	2.1
M 768 M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS?		32.4	38.6	7.1	25.0	2.1	3.0	3.7	44.4	2.1
G1125 G1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTER CIRCUITS?		42.3	22.7	3.6	12.5	2.1	3.0	3.7	77.8	2.1
G1197 S1-10 DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?		18.3	11.4	17.9	25.0	2.1	3.0	3.7	55.6	2.1
L 571 I3-24 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?		1.4	2.3	7.6	12.5	2.1	3.0	3.7	11.1	1.4
I 564 I3-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?		1.4	2.3	7.6	12.5	2.1	3.0	3.7	11.1	1.4
A 4 A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?		7.0	4.5	0	0	4.7	3.0	3.7	66.7	0
A 5 A1-5 DO YOU USE LOGARITHM TABLES?		2.8	2.3	0	0	4.7	6.1	3.7	11.1	0
A 7 A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $X^2 + 4X + 4 = 0$?		1.4	0	0	0	4.7	3.0	3.7	33.3	0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY IAFMS

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D TASK TITLES

A 8 A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
A 9 A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?
A 10 A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS 2 : 5 :: 4 : 10. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS $2/5 = 4/10$. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS 2 : X :: 4 : 10 (X IN THIS CASE IS UNKNOWN).
A 11 A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?
A 16 A2-5 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM DYNE?
A 18 A2-7 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM NEUTRON?
A 19 A2-8 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM COULOMB?
A 20 A2-9 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM PROTON?
A 20 A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASK YOU PERFORM?
E 67 B1-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE LIGHT LEVELS?
B 73 B2-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?
B 78 B3-4 DO YOU ADJUST INDUCTORS?
B 79 B3-5 DO YOU MEASURE INDUCTORS?
B 81 B3-7 DO YOU USE OR REFER TO HENRIES?
B 82 B3-8 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?
P 83 B3-9 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?
B 84 B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?
B 85 B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS?
B 86 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL?
B 87 B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE?
P 88 B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?
B 89 B3-16 DO YOU CALCULATE INDUCTIVE REACTANCE?
B 90 B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?
B 91 B3-21 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?
B 92 B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?
C 100 C1-4 DO YOU ADJUST CAPACITORS?

306 X1 (M)	306 X2 (M)	316 XOF (M)	147 X2F (M)	316 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *(<*)
2.8	2.3	.0	.0	2.1	3.0	.0	33.3	.0
7.0	2.3	.0	.0	2.1	3.0	.0	33.3	.0
12.7	6.8	21.4	50.0	6.4	6.1	.0	44.4	.0
21.1	13.6	14.3	25.0	4.3	6.1	.0	66.7	.0
2.8	4.5	7.1	.0	4.3	6.1	7.4	44.4	.0
21.1	13.6	10.7	12.5	4.3	.0	.0	77.8	.0
4.2	4.5	7.1	.0	4.3	6.1	.0	77.8	.0
18.3	9.1	7.1	12.5	4.3	.0	.0	77.8	.0
19.7	11.4	7.1	25.0	.0	.0	.0	66.7	.0
21.1	.0	3.6	.0	6.4	9.1	11.1	33.3	.0
15.5	13.6	10.7	25.0	.0	.0	.0	66.7	.0
18.3	13.6	17.9	50.0	.0	.0	.0	77.8	.0
23.9	15.9	14.3	50.0	2.1	.0	.0	77.8	.0
18.3	11.4	3.6	12.5	4.3	.0	.0	77.8	.0
18.3	11.4	3.6	12.5	2.1	.0	.0	77.8	.0
8.5	4.5	.0	.0	2.1	.0	.0	44.4	.0
8.5	4.5	.0	.0	2.1	.0	.0	33.3	.0
8.5	6.8	.0	.0	2.1	.0	.0	44.4	.0
15.5	11.4	.0	.0	4.3	.0	.0	44.4	.0
9.0	9.1	.0	.0	4.3	.0	.0	22.2	.0
9.0	9.1	3.6	12.5	4.3	.0	.0	22.2	.0
9.0	6.8	.0	.0	4.3	.0	.0	55.6	.0
9.0	9.1	.0	.0	6.4	.0	.0	55.6	.0
16.9	13.6	3.6	.0	6.4	3.0	1.7	77.8	.0
11.3	4.5	3.6	.0	2.1	.0	.0	55.6	.0
31.0	31.8	14.3	50.0	4.3	.0	.0	88.9	.0

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D TASK TITLES

C 105 C1-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC?
C 108 C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?
C 111 C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?
C 115 C1-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?
C 116 C1-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT?
C 117 C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?
C 120 C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?
C 121 C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?
C 129 C2-4 DO YOU ADJUST TRANSFORMERS?
C 131 C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)?
C 132 C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?
C 133 C2-8 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS?
C 134 C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS?
C 135 C2-10 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS?
C 136 C2-11 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS?
C 140 C2-15 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?
C 141 C2-16 DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?
C 142 C2-17 DO YOU WORK WITH SENSING TRANSFORMERS?
C 147 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?
C 148 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?
C 153 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?
C 154 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?
C 157 C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?
C 158 C2-37 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMER YOU WORK WITH?

306 (M)	306 X1 (M)	306 X2 (M)	316 X0F (M)	148 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
5.6	4.5	4.5	.0	.0	.0	.0	.0	22.2	.0
14.1	15.9	15.9	.0	.0	2.1	.0	.0	22.2	.0
23.9	22.7	22.7	14.3	50.0	10.6	3.0	.0	44.4	.0
23.9	15.9	15.9	.0	.0	17.0	9.1	7.4	66.7	.0
16.9	13.6	13.6	.0	.0	4.3	.0	.0	22.2	.0
16.9	15.9	15.9	3.6	12.5	2.1	.0	.0	33.3	.0
15.5	13.6	13.6	.0	.0	4.3	3.0	3.7	44.4	.0
14.1	9.1	9.1	.0	.0	2.1	.0	.0	44.4	.0
29.6	27.3	27.3	14.3	50.0	2.1	.0	.0	66.7	.0
4.2	2.3	2.3	.0	.0	2.1	.0	.0	33.3	.0
5.6	2.3	2.3	3.6	12.5	.0	.0	.0	22.2	.0
8.5	6.8	6.8	.0	.0	.0	.0	.0	55.6	.0
16.9	11.4	11.4	.0	.0	4.3	6.1	3.7	77.8	.0
12.7	6.8	6.8	.0	.0	2.1	3.0	3.7	22.2	.0
8.5	4.5	4.5	.0	.0	.0	.0	.0	22.2	.0
9.9	2.3	2.3	7.1	12.5	.0	.0	.0	66.7	.0
7.0	6.8	6.8	3.6	12.5	.0	.0	.0	55.6	.0
2.8	.0	.0	7.1	12.5	.0	.0	.0	33.3	.0
29.6	27.3	27.3	.0	.0	2.1	.0	.0	66.7	.0
38.0	36.4	36.4	.0	.0	4.3	3.0	.0	100.0	.0
25.4	11.4	11.4	3.6	.0	6.4	6.1	7.4	55.6	.0
36.4	22.7	22.7	.0	.0	3.5	9.1	7.4	66.7	.0
31.0	18.2	18.2	.0	.0	8.5	9.1	3.7	77.8	.0
18.3	6.8	6.8	.0	.0	6.4	6.1	3.7	55.6	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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D TSM TITLES

D 192 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS?
D 193 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?
D 194 D1-15 DO YOU USE OR REFER TO SELFCTIVITY WHEN WORKING WITH RCL CIRCUITS?
D 195 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?
D 196 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?
D 197 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?
D 198 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?
D 199 D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?
D 200 D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS USING FORMULAS SUCH AS: SINE OF AND ANGLE = OPPOSITE SIDE/HYPOTENUSE?
D 201 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?
D 202 D1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?
D 203 D1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?
D 204 D1-25 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?
D 205 D1-26 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS?
D 206 D1-27 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR SERIES RCL CIRCUITS?
D 207 D1-28 DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR SERIES RCL CIRCUITS?
D 208 D1-29 DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES RCL CIRCUITS?
D 209 D1-30 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL CIRCUITS?
D 210 D1-31 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS?
D 211 D1-32 DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?
D 212 D1-33 DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?
D 213 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS?
D 215 D1-35 DO YOU CHECK INDUCTORS USING OHMMETERS?
D 217 D1-36 DO YOU CHECK RESISTORS USING OHMMETERS?

306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
11.3	6.8	3.6	12.5	4.3	3.0	.0	77.8	.0
8.5	6.8	3.6	12.5	2.1	3.0	.0	55.6	.0
8.5	4.5	3.6	12.5	4.3	3.0	.0	33.3	.0
8.5	4.5	3.6	12.5	4.3	3.0	.0	66.7	.0
8.5	6.8	3.6	12.5	.0	.0	.0	33.3	.0
5.6	4.5	.0	.0	.0	.0	.0	55.6	.0
5.6	2.3	.0	.0	.0	.0	.0	22.2	.0
16.9	11.4	.0	.0	.0	.0	.0	66.7	.0
2.8	2.3	.0	.0	.0	.0	.0	11.1	.0
4.2	2.3	.0	.0	4.3	3.0	.0	22.2	.0
14.1	11.4	.0	.0	4.3	3.0	.0	44.4	.0
7.0	4.5	.0	.0	2.1	.0	.0	33.3	.0
11.3	6.8	.0	.0	4.3	3.0	.0	55.6	.0
8.5	6.8	.0	.0	4.3	3.0	.0	22.2	.0
4.2	2.3	.0	.0	.0	.0	.0	22.2	.0
5.6	4.5	.0	.0	.0	.0	.0	33.3	.0
7.0	6.8	.0	.0	.0	.0	.0	33.3	.0
14.1	6.8	.0	.0	2.1	3.0	.0	66.7	.0
4.2	2.3	.0	.0	.0	.0	.0	11.1	.0
7.0	4.5	.0	.0	.0	.0	.0	33.3	.0
18.3	6.8	3.6	12.5	2.1	3.0	.0	66.7	.0
33.8	29.5	3.6	12.5	4.3	3.0	.0	88.9	.0
26.8	25.0	3.6	12.5	4.3	3.0	.0	88.9	.0
35.2	27.3	3.6	12.5	6.4	3.0	.0	100.0	.0

TASKS WITH 30 PERCENT WP ACROSS AFSC'S BY TAFMS

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D TSK	TITLE'S	306 X1 (H)	306 X2 (H)	316 XOF (H)	316 X2F (H)	362 X1 (H)	362 X3 (H)	362 X4 (H)	918 X0 (H)	MIN IMA *C*
E 250	E1-2 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING?	36.6	18.2	7.1	25.0	2.1	3.0	.0	77.8	.0
E 251	E1-3 DO YOU IDENTIFY C4 SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING (MATCHING)?	28.2	13.6	3.6	12.5	2.1	3.0	.0	77.8	.0
E 252	E1-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH OPTICAL COUPLING?	5.6	4.5	3.6	12.5	.0	.0	.0	33.3	.0
E 254	E1-6 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING?	35.2	18.2	3.6	12.5	2.1	3.0	.0	100.0	.0
E 257	E1-9 DO YOU WORK WITH DIRECT COUPLED CIRCUITS?	32.4	20.5	7.1	25.0	4.3	3.0	.0	100.0	.0
E 258	E1-10 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS?	32.4	15.9	3.6	12.5	4.3	3.0	.0	88.9	.0
E 259	E1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	21.1	13.6	3.6	12.5	4.3	3.0	.0	88.9	.0
E 260	E1-12 DO YOU WORK WITH OPTICAL COUPLING?	5.6	4.5	.0	.0	2.1	.0	.0	33.3	.0
E 261	E1-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?	5.6	4.5	.0	.0	2.1	.0	.0	33.3	.0
F 296	F1-2 DO YOU INSPECT MICROPHONES?	2.8	4.5	.0	.0	14.9	18.2	7.4	66.7	.0
F 297	F1-3 DO YOU CLEAN MICROPHONES?	2.8	4.5	.0	.0	12.8	15.2	7.4	44.4	.0
F 298	F1-4 DO YOU OPERATE MICROPHONES?	2.8	4.5	3.6	.0	12.8	15.2	7.4	66.7	.0
F 299	F1-5 DO YOU TROUBLESHOOT MICROPHONE WIRE CONNECTIONS?	2.8	4.5	.0	.0	14.0	18.2	7.4	66.7	.0
F 300	F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?	1.4	2.3	.0	.0	6.4	6.1	3.7	44.4	.0
F 301	F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?	2.8	4.5	.0	.0	19.1	24.2	14.8	66.7	.0
F 302	F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?	2.8	4.5	.0	.0	4.3	3.0	3.7	55.6	.0
F 303	F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?	2.8	4.5	.0	.0	19.1	24.2	14.8	22.2	.0
F 304	F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?	1.4	2.3	.0	.0	6.4	6.1	.0	22.2	.0
F 305	F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?	1.4	2.3	.0	.0	.0	.0	.0	33.3	.0
F 306	F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?	1.4	2.3	.0	.0	.0	.0	.0	33.3	.0
F 307	F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?	.0	.0	.0	.0	.0	.0	.0	22.2	.0
F 308	F1-14 DO YOU PERFORM TASKS ON TRANSDUCERS?	1.4	2.3	.0	.0	8.5	9.1	7.4	77.8	.0
F 309	F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.	18.3	6.8	3.6	.0	48.9	63.6	59.3	77.8	.0
F 710	F2-2 DO YOU INSPECT SPEAKERS?	16.9	4.5	.0	.0	44.7	57.6	51.9	77.8	.0
F 711	F2-3 DO YOU CLEAN SPEAKERS?	15.5	4.5	.0	.0	29.8	39.4	33.3	55.6	.0
F 712	F2-4 DO YOU OPERATE SPEAKERS?	12.7	4.5	3.6	.0	42.6	54.1	51.9	66.7	.0
F 713	F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?	16.9	4.5	.0	.0	38.7	51.5	45.1	77.8	.0
F 714	F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?	11.7	2.3	.0	.0	14.0	18.2	7.4	33.3	.0
F 715	F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?	16.9	4.5	.0	.0	48.9	63.6	59.3	66.7	.0
F 716	F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?	12.7	4.5	.0	.0	10.6	12.1	7.4	11.1	.0
F 717	F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?	4.7	2.3	.0	.0	2.1	.0	.0	22.2	.0
F 718	F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?	1.4	2.3	.0	.0	2.1	.0	.0	11.1	.0
F 719	F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?	1.4	2.3	.0	.0	2.1	.0	.0	11.1	.0
F 720	F2-12 DO YOU PERFORM ANY TASKS ON VOICE COIL SPEAKER PARTS?	1.4	2.3	.0	.0	4.7	3.0	3.7	11.1	.0
F 721	F2-13 DO YOU PERFORM ANY TASKS ON PERMANENT MAGNET SPEAKER PARTS?	4.2	2.3	.0	.0	2.1	.0	.0	11.1	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

D TSM	TITLES	306 X1 (M)	306 X2 (M)	316 XOF (M)	153	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 XO (M)	MIN IMA **C*
F 322	F2-14 DO YOU PERFORM ANY TASKS ON ELECTROMAGNET SPEAKER PARTS?	1.4	2.3	.0	.0	.0	2.1	.0	.0	11.1	.0
F 323	F2-15 DO YOU PERFORM ANY TASKS ON SOFT IRON CORE SPEAKER PARTS?	1.4	2.3	.0	.0	.0	2.1	.0	.0	11.1	.0
F 325	F3-2 DO YOU PERFORM OPERATIONAL CHECKS USING OSCILLOSCOPES?	76.1	68.2	25.0	87.5	12.8	12.1	.0	.0	100.0	.0
F 326	F3-3 DO YOU PERFORM ALIGNMENTS OR ADJUSTMENTS USING OSCILLOSCOPES?	69.0	56.8	21.4	75.0	8.5	6.1	.0	.0	100.0	.0
F 327	F3-4 DO YOU TROUBLESHOOT ELECTRONIC CIRCUITS USING OSCILLOSCOPES?	73.2	68.2	25.0	87.5	12.8	12.1	.0	.0	100.0	.0
F 328	F3-5 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCIES?	59.2	52.3	21.4	75.0	14.9	15.2	.0	.0	100.0	.0
F 329	F3-6 DO YOU USE OSCILLOSCOPES TO MEASURE TIME?	52.1	45.5	25.0	87.5	8.5	9.1	.0	.0	100.0	.0
F 330	F3-7 DO YOU USE OSCILLOSCOPES TO OBSERVE LISSAJOUS PATTERNS?	32.4	11.4	3.6	12.5	2.1	3.0	.0	.0	33.3	.0
F 331	F3-8 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.	52.1	47.7	3.6	12.5	6.4	9.1	.0	.0	88.9	.0
F 332	F3-9 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS?	38.0	29.5	3.6	12.5	2.1	3.0	.0	.0	55.6	.0
F 333	F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGES?	77.5	70.5	25.0	87.5	12.8	15.2	.0	.0	100.0	.0
F 334	F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGES?	78.9	72.7	21.4	75.0	14.9	15.2	.0	.0	100.0	.0
F 335	F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS?	36.6	34.1	14.3	50.0	8.5	9.1	.0	.0	77.8	.0
F 336	F3-13 DO YOU USE OSCILLOSCOPES TO OBSERVE DATA PATTERNS?	66.2	54.5	21.4	75.0	.0	.0	.0	.0	66.7	.0
F 337	F3-14 DO YOU USE OSCILLOSCOPES TO MEASURE RIPLE VOLTAGES?	59.2	38.6	25.0	87.5	6.4	9.1	.0	.0	88.9	.0
F 338	F3-15 DO YOU USE OSCILLOSCOPES TO MEASURE PHASE JITTERS?	19.7	15.9	3.6	12.5	4.3	6.1	.0	.0	44.4	.0
F 339	F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?	36.6	27.3	7.1	25.0	4.3	6.1	.0	.0	86.9	.0
F 340	F3-17 DO YOU USE OSCILLOSCOPES TO OBSERVE PHASE RELATIONSHIPS?	50.7	38.6	7.1	25.0	6.4	9.1	.0	.0	100.0	.0
F 341	F3-18 DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?	23.9	13.6	3.6	12.5	8.5	12.1	.0	.0	77.8	.0
G 345	G1-4 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES?	12.7	6.8	3.6	12.5	.0	.0	.0	.0	22.2	.0
G 346	G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?	26.8	13.6	3.6	12.5	6.4	6.1	.0	.0	44.4	.0
G 347	G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?	31.0	20.5	3.6	12.5	.0	.0	.0	.0	44.4	.0
G 350	G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF COPING ON CURRENT FLOW?	16.9	6.8	3.6	12.5	4.7	6.1	.0	.0	44.4	.0
G 351	G1-10 DO YOU MEASURE FORWARD BIAS RESISTANCE?	43.7	34.1	14.3	50.0	6.4	6.1	.0	.0	88.9	.0
G 352	G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?	47.7	34.1	14.3	50.0	6.4	6.1	.0	.0	88.9	.0
G 353	G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF JUNCTIONS SUCH AS GERMANIUM OR SILICON?	14.1	9.1	10.7	77.5	2.1	3.0	.0	.0	77.8	.0
F 355	F1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?	33.8	15.9	3.6	12.5	.0	.0	.0	.0	77.8	.0

TASKS WITH 50 PERCENT 4P ADDRESS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	FCPT03 PAGE 154				MIN			
		306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)
G 361	G1-20 DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?	14.1	15.9	3.6	12.5	.0	.0	.0	44.4
G 362	G1-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?	11.3	13.6	3.6	12.5	.0	.0	.0	44.4
G 363	G1-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?	12.7	13.6	3.6	12.5	.0	.0	.0	66.7
G 364	G1-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?	11.3	11.4	3.6	12.5	.0	.0	.0	44.4
G 365	G1-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?	11.3	11.4	7.1	25.0	.0	.0	.0	66.7
G 366	G1-25 DO YOU NEED AN UNDERSTANDING OF FLEETPON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	15.5	13.6	3.6	12.5	2.1	3.0	.0	88.9
G 367	G1-26 DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?	12.7	11.4	3.6	12.5	.0	.0	.0	33.3
G 369	G1-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	9.9	9.1	7.1	25.0	.0	.0	.0	33.3
G 369	G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	35.2	22.7	7.1	25.0	4.3	6.1	.0	100.0
G 370	G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	36.6	22.7	3.6	12.5	4.3	6.1	.0	100.0
G 371	G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	10.7	15.9	3.6	12.5	.0	.0	.0	55.6
G 372	G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	21.1	18.2	3.6	12.5	.0	.0	.0	55.6
G 373	G1-32 DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?	11.3	9.1	7.1	25.0	.0	.0	.0	55.6
G 374	G1-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	11.3	11.4	3.6	12.5	.0	.0	.0	66.7
G 375	G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?	12.7	13.6	3.6	12.5	.0	.0	.0	55.6
G 377	G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS?	9.5	4.5	.0	.0	2.1	3.0	3.7	22.2
G 379	G1-39 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT AND RATIO?	15.5	11.4	.0	.0	2.1	.0	.0	66.7
G 380	G1-39 DO YOU USE OR REFER TO PEAK PECCURRENT FORWARD CURRENT DICE RATINGS?	14.1	11.4	.0	.0	2.1	.0	.0	33.3
G 381	G1-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS?	18.3	11.4	.0	.0	2.1	.0	.0	66.7
G 382	G1-41 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DICE RATINGS?	18.3	12.6	3.6	12.5	2.1	.0	.0	77.8
G 383	G1-42 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION?	43.7	34.1	.0	.0	6.4	6.1	3.7	100.0
G 384	G1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LEAKAGE CURRENT (I _B) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?	21.1	20.5	3.6	12.5	2.1	3.0	.0	55.6
G 385	G1-44 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC INFORMATION?	9.9	9.1	3.6	12.5	2.1	3.0	.0	66.7
G 386	G1-45 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?	8.5	11.4	.0	.0	.0	.0	.0	11.1

TASKS WITH 50 PERCENT MP ACROSS AFSC'S BY TAFMS

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TITLES

306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
15.5	6.8	3.6	12.5	.0	.0	.0	33.3	.0
16.9	9.1	3.6	12.5	.0	.0	.0	33.3	.0
9.9	6.8	3.6	12.5	.0	.0	.0	33.3	.0
14.1	11.4	3.6	12.5	2.1	3.0	.0	66.7	.0
7.0	6.8	3.6	12.5	2.1	3.0	.0	66.7	.0
5.6	4.5	3.6	12.5	2.1	3.0	.0	55.6	.0
5.6	4.5	3.6	12.5	.0	.0	.0	44.4	.0
4.2	4.5	3.6	12.5	.0	.0	.0	44.4	.0
9.0	4.5	3.6	12.5	2.1	3.0	.0	100.0	.0
1.4	.0	3.6	12.5	.0	.0	.0	22.2	.0
4.2	.0	3.6	12.5	.0	.0	.0	44.4	.0
5.6	2.3	3.6	12.5	.0	.0	.0	66.7	.0
5.6	2.3	3.6	12.5	.0	.0	.0	100.0	.0
15.5	4.5	3.6	12.5	2.1	.0	.0	88.9	.0
1.4	.0	.0	.0	.0	.0	.0	44.4	.0
9.0	4.5	3.6	12.5	6.4	6.1	.0	77.8	.0
10.1	9.1	3.6	12.5	2.1	3.0	.0	100.0	.0
4.2	4.5	.0	.0	.0	.0	.0	33.3	.0
2.8	2.3	.0	.0	.0	.0	.0	33.3	.0
2.8	2.3	3.6	12.5	2.1	.0	.0	22.2	.0
11.7	2.3	3.6	12.5	.0	.0	.0	100.0	.0
5.6	4.5	3.6	12.5	.0	.0	.0	100.0	.0
11.7	4.5	3.6	12.5	.0	.0	.0	100.0	.0
4.2	2.3	.0	.0	.0	.0	.0	44.4	.0
4.2	2.3	3.6	12.5	.0	.0	.0	77.8	.0
18.7	6.8	3.6	12.5	.0	.0	.0	77.8	.0
5.6	6.8	.0	.0	.0	.0	.0	100.0	.0

G 428 G3-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?

G 429 G3-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?

G 430 G3-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?

G 431 G3-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?

G 432 G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?

G 433 G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?

G 434 G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?

G 436 G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?

G 437 G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?

G 438 G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?

G 439 G3-33 DO YOU TROUBLESHOOT OR REPAIR COMMON-CONNECTED AMPLIFIERS?

G 440 G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADED-CONNECTED AMPLIFIERS?

G 441 G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (DOUBLERS/TRIPLES)?

G 442 G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?

G 443 G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?

G 444 G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?

G 445 G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?

G 446 G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?

G 447 G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?

G 448 G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?

G 449 G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?

G 450 G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?

G 451 G3-45 DO YOU TROUBLESHOOT OR REPAIR INTERGRATING AMPLIFIERS?

G 452 G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS?

G 453 G3-47 DO YOU TROUBLESHOOT OR REPAIR VARIACAP COMPONENTS?

G 454 G3-48 DO YOU TROUBLESHOOT OR REPAIR TUNNEL DIODE COMPONENTS?

G 455 G3-49 DO YOU TROUBLESHOOT OR REPAIR FIELD EFFECT TRANSISTOR (FET) AMPS?

TASKS WITH 10 PERCENT MP ACROSS AFSC'S BY TAFMS

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O TASK TITLES

M 456 M1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS?
M 461 M1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS?
M 462 M1-10 DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS?
M 463 M1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS?
M 464 M1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS?
M 465 M1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS?
M 466 M1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS?
M 477 M2-11 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?
M 478 M2-13 DO YOU WORK WITH THREE-PHASE RECTIFIERS?
M 490 M2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS?
M 491 M2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS?
M 492 M2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS?
M 493 M2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS?
M 494 M2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS?
M 499 M3-2 DO YOU INSPECT OSCILLATORS?
M 500 M3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?
M 501 M3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?
M 502 M3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?
M 503 M3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?
M 504 M3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?
M 505 M3-8 DO YOU USE OR REFER TO FEEDBACK (NEGATIVE OR POSITIVE)?
M 506 M3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
M 507 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
M 508 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
M 509 M3-12 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL OSCILLATIONS)?
M 510 M3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
M 511 M3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?
M 512 M3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?
M 513 M3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?
M 514 M3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOP (PLL)?

306 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	362 X0 (M)	918 X0 (M)	MIN IMA #C*
39.4	15.9	7.1	25.0	.0	.0	.0	100.0	.0	.0
5.6	2.3	.0	.0	.0	.0	.0	11.1	.0	.0
37.8	6.8	25.0	75.0	2.1	3.0	.0	100.0	.0	.0
21.1	20.5	3.6	12.5	.0	.0	.0	100.0	.0	.0
4.2	.0	.0	.0	.0	.0	.0	100.0	.0	.0
7.0	2.3	3.6	12.5	.0	.0	.0	77.8	.0	.0
1.4	.0	.0	.0	.0	.0	.0	88.9	.0	.0
66.2	54.5	25.0	75.0	12.8	9.1	.0	88.9	.0	.0
25.4	20.5	17.9	62.5	4.3	.0	.0	55.6	.0	.0
39.4	27.3	.0	.0	14.9	15.2	14.8	100.0	.0	.0
26.8	15.9	.0	.0	4.3	6.1	7.4	55.6	.0	.0
23.0	13.6	.0	.0	2.1	3.0	3.7	55.6	.0	.0
15.5	4.5	.0	.0	2.1	3.0	3.7	33.3	.0	.0
16.0	4.5	.0	.0	2.1	3.0	3.7	33.3	.0	.0
25.4	11.4	7.1	12.5	14.9	15.2	.0	100.0	.0	.0
19.7	4.5	3.6	12.5	17.0	15.2	.0	88.9	.0	.0
16.0	4.5	3.6	12.5	10.6	12.1	.0	88.9	.0	.0
14.1	4.5	3.6	12.5	2.1	3.0	.0	100.0	.0	.0
19.7	6.8	3.6	12.5	8.5	12.1	.0	100.0	.0	.0
16.0	6.8	.0	.0	.0	.0	.0	100.0	.0	.0
16.0	4.5	.0	.0	6.4	6.1	3.7	88.9	.0	.0
16.0	6.8	.0	.0	6.4	6.1	.0	88.9	.0	.0
14.1	4.5	.0	.0	4.3	6.1	.0	55.6	.0	.0
15.5	6.8	3.6	12.5	8.5	9.1	.0	44.4	.0	.0
14.1	9.1	.0	.0	.0	.0	.0	66.7	.0	.0
9.0	4.5	.0	.0	.0	.0	.0	66.7	.0	.0
15.5	6.8	3.6	12.5	.0	.0	.0	66.7	.0	.0
22.5	6.8	3.6	12.5	2.1	3.0	.0	88.9	.0	.0
20.5	9.1	.0	.0	.0	.0	.0	77.8	.0	.0
7.0	2.3	.0	.0	.0	.0	.0	33.3	.0	.0

TASKS WITH 20 PERCENT MP ACROSS AFSC'S BY TAFMS										OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX									
		FCPT03 PAGE 158																	
D TSK	TITLES	306 X1 (M)	306 X2 (M)	316 XUF (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*									
H 516	H3-12 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	9.9	4.5	3.6	.0	8.5	6.1	.0	33.3	.0									
H 516	H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS?	9.9	2.3	.0	.0	.0	.0	.0	44.4	.0									
H 517	H3-20 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS?	14.1	2.3	3.6	12.5	.0	.0	.0	44.4	.0									
H 518	H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?	4.2	2.3	.0	.0	.0	.0	.0	11.1	.0									
H 519	H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?	4.2	2.3	.0	.0	.0	.0	.0	22.2	.0									
H 520	H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATORS?	8.5	.0	3.6	12.5	2.1	3.0	.0	33.3	.0									
H 521	H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?	18.3	4.5	3.6	12.5	.0	.0	.0	66.7	.0									
H 522	H3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO) SINUSOIDAL OSCILLATORS?	5.6	2.3	3.6	12.5	.0	.0	.0	33.3	.0									
H 523	H3-26 DO YOU WORK WITH WIEN BRIDGE OSCILLATORS SINUSOIDAL OSCILLATORS?	8.5	4.5	3.6	12.5	.0	.0	.0	44.4	.0									
H 524	H3-27 DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF SINUSOIDAL OSCILLATOR?	9.9	6.8	3.6	.0	12.8	9.1	.0	55.6	.0									
H 525	H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?	18.3	9.1	.0	.0	2.1	.0	.0	66.7	.0									
H 526	H3-29 DO YOU WORK WITH BLOCKING OSCILLATORS?	5.6	4.5	3.6	12.5	.0	.0	.0	44.4	.0									
H 527	H3-30 DO YOU WORK WITH BURST GENERATORS?	1.4	.0	3.6	12.5	.0	.0	.0	33.3	.0									
H 528	H3-31 DO YOU WORK WITH LOCKED OSCILLATORS?	2.8	2.3	3.6	12.5	.0	.0	.0	22.2	.0									
I 529	I1-1 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB? IF NOT, GO TO ITEM 12-1; IF YES, CONTINUE.	35.2	18.2	3.6	12.5	2.1	3.0	.0	100.0	.0									
I 530	I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?	15.5	9.1	.0	.0	.0	.0	.0	66.7	.0									
I 531	I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL FREQUENCY DETERMINING DEVICES (FDD)?	22.5	9.1	.0	.0	.0	.0	.0	77.8	.0									
I 532	I1-5 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	7.0	4.5	.0	.0	.0	.0	.0	33.3	.0									
I 536	I1-8 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?	36.6	18.2	3.6	12.5	2.1	3.0	.0	100.0	.0									
I 537	I1-9 DO YOU WORK WITH S-S FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	12.7	9.1	3.6	12.5	.0	.0	.0	77.8	.0									
I 538	I1-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	35.2	18.2	3.6	12.5	.0	.0	.0	100.0	.0									
I 539	I1-11 DO YOU WORK WITH "D" FLIP-FLOP INTEGRATED CIRCUIT REGULATORS?	9.9	4.5	3.6	12.5	.0	.0	.0	66.7	.0									
I 540	I2-1 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB? IF NOT, GO TO ITEM 13-1; IF YES, CONTINUE.	14.1	11.4	.0	.0	2.1	3.0	.0	98.9	.0									
I 541	I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?	8.5	9.1	.0	.0	.0	.0	.0	22.2	.0									
I 542	I2-3 DO YOU WORK WITH SHUNT DIODE LIMITERS?	9.9	9.1	.0	.0	.0	.0	.0	33.3	.0									
I 543	I2-4 DO YOU WORK WITH LIMITERS WITH BIAS?	7.0	6.8	.0	.0	.0	.0	.0	66.7	.0									
I 544	I2-5 DO YOU WORK WITH ZENER DIODE LIMITERS?	11.3	9.1	.0	.0	2.1	3.0	.0	77.8	.0									
I 545	I2-6 DO YOU WORK WITH TRANSISTOR LIMITERS?	11.3	9.1	.0	.0	2.1	3.0	.0	66.7	.0									
I 546	I2-7 DO YOU WORK WITH TRIODE LIMITERS?	4.2	2.3	.0	.0	.0	.0	.0	33.3	.0									
I 547	I2-8 DO YOU WORK WITH PASSIVE DIODE CLAMPING CIRCUITS?	11.3	9.1	.0	.0	.0	.0	.0	66.7	.0									
I 548	I2-9 DO YOU WORK WITH DIAS DIODE CLAMPING CIRCUITS?	9.9	6.8	.0	.0	.0	.0	.0	44.4	.0									
I 549	I2-1 DO YOU WORK WITH CLAMPERS?	5.6	4.5	.0	.0	.0	.0	.0	22.2	.0									

TASKS WITH 30 PERCENT HP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

C TSK	TITLES	306 (M)	306 X2 (M)	316 X0F (M)	159 (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	218 X0 (M)	MIN
I 550	I3-1 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS BASIC ELECTRON TUBES (FOR PURPOSES OF THIS QUESTION DO NOT CONSIDER HIGH-FREQUENCY DEVICES SUCH AS KLYSTRONS, TRAVELING WAVE TUBES, BACKWARD WAVE OSCILLATORS, OR MAGNETRONS AS ELECTRON TUBES)? IF NO, GO TO ITEM J1-1; IF YES, CONTINUE.	15.5	22.7	25.0	87.5	2.1	3.0	.0	55.6	.0
I 551	I3-2 DO YOU CHECK THE CONDITION OF ELECTRON TUBES?	11.3	18.2	25.0	87.5	.0	.0	.0	55.6	.0
I 552	I3-3 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES?	2.8	4.5	10.7	37.5	.0	.0	.0	44.4	.0
I 553	I3-4 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES?	7.0	9.1	25.0	87.5	2.1	3.0	.0	55.6	.0
I 554	I3-5 DO YOU USE SCOPES TO CHECK ELECTRON TUBES?	5.6	6.8	3.6	12.5	2.1	3.0	.0	55.6	.0
I 555	I3-6 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES?	15.5	20.5	17.9	62.5	.0	.0	.0	55.6	.0
I 556	I3-7 DO YOU USE OR REFER TO CUTOFF?	5.6	9.1	7.1	25.0	.0	.0	.0	44.4	.0
I 557	I3-8 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING?	4.2	4.5	3.6	12.5	.0	.0	.0	44.4	.0
I 558	I3-9 DO YOU USE OR REFER TO PEAK CURRENT RATING?	4.2	4.5	3.6	12.5	2.1	3.0	.0	44.4	.0
I 559	I3-10 DO YOU USE OR REFER TO TRANSIT TIME?	1.4	2.3	7.1	25.0	.0	.0	.0	22.2	.0
I 560	I3-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING?	1.4	2.3	.0	.0	.0	.0	.0	11.1	.0
I 561	I3-12 DO YOU USE OR REFER TO SATURATION?	5.6	6.8	7.1	25.0	2.1	.0	.0	44.4	.0
I 562	I3-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE?	2.8	4.5	.0	.0	.0	.0	.0	11.1	.0
I 563	I3-14 DO YOU USE OR REFER TO PLATE VOLTAGE?	4.2	6.8	17.9	62.5	.0	.0	.0	55.6	.0
I 564	I3-15 DO YOU USE OR REFER TO PLATE CURRENT?	4.2	6.8	7.1	25.0	.0	.0	.0	44.4	.0
I 565	I3-16 DO YOU USE OR REFER TO GRID VOLTAGE?	5.6	9.1	7.1	25.0	.0	.0	.0	55.6	.0
I 566	I3-17 DO YOU USE OR REFER TO GRID CURRENT?	5.6	9.1	7.1	25.0	.0	.0	.0	44.4	.0
I 567	I3-18 DO YOU USE OR REFER TO CATHODE VOLTAGE?	4.2	6.8	21.4	75.0	.0	.0	.0	55.6	.0
I 568	I3-19 DO YOU USE OR REFER TO CATHODE CURRENT?	4.2	6.8	7.1	25.0	.0	.0	.0	44.4	.0
I 569	I3-20 DO YOU USE OR REFER TO FILAMENT VOLTAGE?	4.2	6.8	17.9	62.5	.0	.0	.0	55.6	.0
I 570	I3-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?	.0	.0	.0	.0	.0	.0	.0	22.2	.0
I 571	I3-22 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?	.0	.0	.0	.0	2.1	3.0	3.7	33.3	.0
I 572	I3-23 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
I 573	I3-24 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?	1.4	2.3	.0	.0	2.1	3.0	3.7	.0	.0
I 574	I3-25 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?	1.4	2.3	.0	.0	2.1	3.0	3.7	22.2	.0
I 575	I3-26 DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?	2.8	4.5	14.3	50.0	.0	.0	.0	55.6	.0
I 576	I3-27 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	2.8	4.5	3.6	12.5	.0	.0	.0	44.4	.0
I 577	I3-28 DO YOU USE OR REFER TO DIAS REQUIRED FOR CUTOFF?	5.6	6.8	3.6	12.5	2.1	3.0	.0	44.4	.0
I 578	I3-29 DO YOU USE OR REFER TO DIAS REQUIRED FOR SATURATION?	5.6	6.8	3.6	12.5	2.1	3.0	.0	44.4	.0
I 579	I3-30 DO YOU USE OR REFER TO GAIN?	2.8	4.5	17.9	62.5	2.1	3.0	.0	44.4	.0
I 580	I3-31 DO YOU USE OR REFER TO EFFICIENCY?	2.8	4.5	3.6	12.5	2.1	3.0	.0	44.4	.0
I 581	I3-32 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?	4.2	6.8	21.4	75.0	.0	.0	.0	55.6	.0
I 582	I3-33 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?	0.0	13.6	21.4	75.0	2.1	.0	.0	55.6	.0

TASKS WITH 33 PERCENT OR MORE AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

Q TSK	TITLES	306 (M)	306 X2 (M)	316 X0F (M)	160	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA ACC
I 587	I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS?	4.2	6.8	.0	.0	.0	.0	.0	55.6	.0
I 588	I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?	1.4	2.3	3.6	12.5	.0	.0	.0	44.4	.0
J 589	J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES, CONTINUE.	.0	.0	.0	.0	.0	.0	.0	33.3	.0
J 590	J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0
J 591	J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	22.2	.0
J 592	J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	33.3	.0
J 593	J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	22.2	.0
J 594	J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	33.3	.0
J 595	J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE OF AMPLIFIER?	.0	.0	.0	.0	.0	.0	.0	.0	.0
J 596	J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)?	1.4	2.3	7.1	25.0	.0	.0	.0	55.6	.0
J 598	J2-3 DO YOU WORK WITH BEAM POWER TUBES?	1.4	2.3	.0	.0	2.1	.0	.0	66.7	.0
J 599	J2-4 DO YOU WORK WITH THYRATrons?	.0	.0	3.6	12.5	.0	.0	.0	44.4	.0
J 600	J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?	9.9	13.6	3.6	12.5	.0	.0	.0	55.6	.0
J 601	J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	7.0	9.1	.0	.0	2.1	3.0	3.7	66.7	.0
J 602	J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	5.6	6.8	.0	.0	2.1	3.0	3.7	55.6	.0
J 603	J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?	7.0	9.1	3.6	12.5	.0	.0	.0	100.0	.0
J 604	J2-9 DO YOU USE OR REFER TO AQUADAG COATINGS CONCERNING CRT'S?	.0	.0	.0	.0	.0	.0	.0	33.3	.0
J 605	J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?	.0	.0	.0	.0	.0	.0	.0	27.2	.0
J 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?	1.4	2.3	.0	.0	.0	.0	.0	33.3	.0
J 607	J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?	.0	.0	.0	.0	.0	.0	.0	44.4	.0
J 608	J2-13 DO YOU USE OR REFER TO FLUORESCENCE CONCERNING CRT'S?	1.4	2.3	7.1	12.5	.0	.0	.0	66.7	.0
J 609	J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?	2.8	2.3	.0	.0	.0	.0	.0	55.6	.0
J 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?	1.4	2.3	.0	.0	.0	.0	.0	33.3	.0
J 611	J2-16 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.	57.5	30.6	7.6	.0	31.0	31.1	17.0	20.2	.0
J 612	J2-17 DO YOU PERFORM WORK ON FREQUENCY CONVERTER SYSTEMS STATED?	14.1	9.1	.0	.0	.0	.0	.0	11.1	.0
J 613	J2-18 DO YOU PERFORM WORK ON FREQUENCY MIXER SYSTEMS STATED?	12.7	6.8	.0	.0	2.1	3.0	3.7	11.1	.0
J 614	J3-4 DO YOU PERFORM WORK ON FREQUENCY SYSTEMS STATED?	76.0	15.9	.0	.0	14.0	14.1	14.8	11.1	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAPPS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	306 X1 (M)	306 X2 (M)	316 XOF (M)	161 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	IMA	ACC
J 615	J3-5 DO YOU USE OR REFER TO THE HETEROODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?	4.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
J 616	J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
J 617	J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?	9.9	.0	.0	.0	.0	.0	.0	11.1	.0	.0
K 618	K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.	5.6	2.3	.0	.0	4.3	6.1	7.4	.0	.0	.0
K 619	K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 620	K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 621	K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 622	K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 623	K1-6 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 624	K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 625	K1-8 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 626	K1-9 DO YOU PERFORM TASKS ON RF OSCILLATORS/SYNTHESIZERS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 627	K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0	.0
K 628	K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0	.0
K 629	K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0	.0
K 630	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 631	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 632	K1-15 DO YOU PERFORM TASKS ON DETECTORS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 633	K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 634	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?	1.4	2.3	.0	.0	.0	.0	.0	.0	.0	.0
K 635	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 636	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 637	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?	2.8	2.3	.0	.0	.0	.0	.0	.0	.0	.0
K 638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	5.6	2.3	3.6	.0	4.3	6.1	7.4	.0	.0	.0
K 639	K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	3.6	.0	2.1	3.0	3.7	.0	.0	.0
K 640	K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 641	K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 642	K2-5 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	3.6	.0	2.1	3.0	3.7	.0	.0	.0
K 643	K2-6 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?	2.8	2.3	3.6	.0	.0	.0	.0	.0	.0	.0
K 644	K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?	2.8	2.3	.0	.0	2.1	3.0	3.7	.0	.0	.0
K 645	K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 646	K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
K 647	K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	4.2	.0	.0	.0	.0	.0	.0	11.1	.0	.0
K 648	K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?	4.2	.0	.0	.0	.0	.0	.0	11.1	.0	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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D TSK TITLES

306 (M)	316 X2F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
1.4	.0	.0	.0	.0	.0	.0	.0
4.2	.0	.0	.0	.0	.0	11.1	.0
1.4	.0	.0	.0	.0	.0	11.1	.0
1.4	.0	.0	.0	.0	.0	.0	.0
1.4	.0	.0	.0	.0	.0	.0	.0
1.4	.0	.0	.0	.0	.0	11.1	.0
1.4	.0	.0	.0	.0	.0	.0	.0
2.8	.0	.0	2.1	3.0	3.7	.0	.0
2.8	.0	.0	2.1	3.0	3.7	.0	.0
1.4	.0	.0	.0	.0	.0	.0	.0
1.4	.0	.0	.0	.0	.0	.0	.0
16.1	6.8	17.9	.0	.0	.0	.0	.0
18.3	6.8	57.1	2.1	3.0	.0	55.6	.0
18.3	6.8	21.4	.0	.0	.0	55.6	.0
11.3	6.6	17.9	.0	.0	.0	44.4	.0
25.4	9.1	21.4	2.1	.0	.0	66.7	.0
18.3	6.8	25.0	.0	.0	.0	55.6	.0
11.7	6.8	17.9	.0	.0	.0	55.6	.0
11.3	6.6	21.4	.0	.0	.0	55.6	.0
11.3	6.8	21.4	.0	.0	.0	44.4	.0
11.7	6.8	17.9	.0	.0	.0	55.6	.0
19.7	6.8	7.6	2.1	.0	.0	44.4	.0
11.3	6.8	17.9	.0	.0	.0	44.4	.0
2.8	2.3	.0	2.1	3.0	.0	44.4	.0
2.8	2.3	.0	2.1	3.0	.0	22.2	.0
2.8	2.3	.0	2.1	3.0	.0	33.3	.0
50.1	31.8	25.0	.0	.0	.0	28.9	.0
17.9	18.2	7.1	.0	.0	.0	28.9	.0
30.4	15.9	7.1	.0	.0	.0	59.9	.0
21.7	12.0	7.1	.0	.0	.0	28.9	.0
71.7	13.4	7.1	.0	.0	.0	28.9	.0
40.3	29.5	14.7	.0	.0	.0	28.9	.0
47.1	29.5	14.7	.0	.0	.0	28.9	.0

K 649 M2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS?)
 K 650 M2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?
 K 651 M2-14 DO YOU PERFORM TASKS ON RF AMPLIFIERS?
 K 652 M2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?
 K 653 M2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?
 K 654 M2-17 DO YOU PERFORM TASKS ON LIMITERS?
 K 655 M2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?
 K 656 M2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?
 K 657 M2-20 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?
 K 658 M2-21 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSCIEVERS?
 K 659 M2-22 DO YOU PLOT RECEIVE SIGNAL LEVEL CURVES (RSL)?
 K 660 M3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?
 K 661 M3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?
 K 662 M3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?
 K 663 M3-6 DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?
 K 664 M3-7 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?
 K 665 M3-8 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?
 K 666 M3-9 DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?
 K 667 M3-10 DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?
 K 670 M3-11 DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?
 K 671 M3-12 DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?
 K 673 M3-14 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD?
 K 675 M3-19 DO YOU SUBTRACT HEXADECIMAL NUMBERS?
 K 682 M3-23 DO YOU USE OR REFER TO GRAY CODE?
 K 683 M3-24 DO YOU USE OR REFER TO ICAC CODE?
 K 684 M3-25 DO YOU USE OR REFER TO EXCESS-3 CODE?
 L 685 L1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.
 L 686 L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR "AND" LOGIC SYMBOLS OR GATES?
 L 687 L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR "OR" LOGIC SYMBOLS OR GATES?
 L 688 L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR "NAND" OR "NOR" LOGIC SYMBOLS WITH GATES IN LOGIC?
 L 689 L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR "EXCLUSIVE OR" LOGIC SYMBOLS WITH GATES?
 L 690 L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR "AND" LOGIC SYMBOLS WITH GATES?
 L 691 L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR "OR" LOGIC SYMBOLS WITH GATES?

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

TASKS WITH 30 PERCENT NP ACROSS AFSC'S BY TAFMS

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS										SECURITY ANALYSIS PROGRAM									
										AFSAFOMC (ATC) RANDOLPH AFB TX									
										FCPT03 PAGE 163									
D TSK										TITLES									
		306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN X0 (M)									
L 692	L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?	40.8	25.0	14.3	12.5	.0	.0	.0	88.9	.0									
L 693	L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?	40.8	25.0	7.1	12.5	.0	.0	.0	89.9	.0									
L 694	L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?	52.1	34.1	25.0	12.5	.0	.0	.0	88.9	.1									
L 695	L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?	52.1	34.1	25.0	12.5	.0	.0	.0	88.9	.0									
L 696	L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?	52.1	34.1	25.0	12.5	.0	.0	.0	88.9	.0									
L 697	L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'EXCLUSIVE OR' GATES?	49.3	29.5	17.9	12.5	.0	.0	.0	88.9	.0									
L 698	L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED 'AND' GATES?	50.7	31.8	17.9	12.5	.0	.0	.0	88.9	.0									
L 699	L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'B' BARS?	31.0	2.3	.0	.0	.0	.0	.0	22.2	.0									
L 700	L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'W' BARS?	31.0	2.3	.0	.0	.0	.0	.0	22.2	.0									
L 701	L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?	33.8	4.5	3.6	12.5	.0	.0	.0	33.3	.0									
L 702	L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS?	47.9	29.5	3.6	12.5	.0	.0	.0	88.9	.0									
L 703	L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR SYMBOLS?	39.4	20.5	3.6	12.5	.0	.0	.0	88.9	.0									
L 704	L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS?	49.3	31.8	10.7	12.5	.0	.0	.0	88.9	.0									
L 705	L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS?	36.6	18.2	10.7	12.5	.0	.0	.0	88.9	.0									
L 706	L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES?	39.4	25.0	3.6	12.5	.0	.0	.0	88.9	.0									
L 707	L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	31.0	15.9	3.6	12.5	.0	.0	.0	44.4	.0									
L 708	L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS?	31.0	15.9	3.6	12.5	.0	.0	.0	44.4	.0									
L 709	L1-25 DO YOU USE OR REFER TO NONCOMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	28.2	13.6	3.6	12.5	.0	.0	.0	44.4	.0									
L 710	L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR 'B' BARS?	19.7	2.3	3.6	12.5	.0	.0	.0	11.1	.0									
L 711	L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR 'W' BARS?	19.7	2.3	3.6	12.5	.0	.0	.0	11.1	.0									
L 712	L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	21.1	2.3	3.6	12.5	.0	.0	.0	11.1	.0									
L 713	L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	39.4	22.7	3.6	12.5	.0	.0	.0	77.8	.0									
L 714	L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS?	36.6	15.9	3.6	12.5	.0	.0	.0	66.7	.0									
L 715	L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	33.8	11.4	3.6	12.5	.0	.0	.0	55.6	.0									
L 716	L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	29.6	9.1	3.6	12.5	.0	.0	.0	55.6	.0									
L 717	L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS?	32.4	13.6	3.6	12.5	.0	.0	.0	77.8	.0									
L 719	L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DLTL) CIRCUITS?	11.3	9.1	.0	.0	.0	.0	.0	44.4	.0									
L 720	L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	9.9	6.8	3.6	12.5	.0	.0	.0	11.1	.0									
L 721	L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS?	15.5	9.1	.0	.0	.0	.0	.0	44.4	.0									

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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D TSM	TITLES	306 X1 (M)	306 X2 (M)	316 XOF (M)	125	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 XO (M)	MIN IMA XCO
L 751	L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?	26.8	13.6	3.6	12.5	316	362	362	362	918	.0
M 752	M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?	25.4	9.1	3.6	12.5	316	362	362	362	100.0	.0
M 753	M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING CIRCUITS?	11.3	4.5	3.6	12.5	316	362	362	362	77.8	.0
M 755	M1-4 DO YOU WORK WITH BLOCKING OSCILLATOR TIMING CIRCUITS?	11.3	6.8	3.6	12.5	316	362	362	362	66.7	.0
M 756	M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	15.5	4.5	3.6	12.5	316	362	362	362	11.1	.0
M 757	M1-6 DO YOU USE OR REFER TO RISE TIME?	28.2	18.2	21.4	75.0	316	362	362	362	88.9	.0
M 758	M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?	19.7	15.9	21.4	75.0	316	362	362	362	88.9	.0
M 759	M1-8 DO YOU USE OR REFER TO SWEEP TIME?	28.2	18.2	17.9	62.5	316	362	362	362	100.0	.0
M 760	M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?	14.1	9.1	3.6	12.5	316	362	362	362	66.7	.0
M 761	M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?	18.3	11.4	3.6	12.5	316	362	362	362	77.8	.0
M 762	M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS?	12.7	4.5	3.6	12.5	316	362	362	362	44.4	.0
M 763	M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS?	11.3	4.5	3.6	12.5	316	362	362	362	44.4	.0
M 770	M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE?	14.1	13.6	14.3	50.0	316	362	362	362	44.4	.0
M 771	M2-8 DO YOU USE RF GENERATORS LESS THAN 1,000 MH?	5.6	6.8	3.6	12.5	316	362	362	362	33.3	.0
M 772	M2-9 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH?	2.8	2.3	3.6	12.5	316	362	362	362	33.3	.0
M 773	M2-10 DO YOU USE WHITE NOISE GENERATORS?	23.9	36.4	0.0	0.0	316	362	362	362	33.3	.0
M 774	M2-11 DO YOU USE PATTERN GENERATORS?	2.8	4.5	0.0	0.0	316	362	362	362	33.3	.0
M 775	M2-12 DO YOU USE PSEUDO-RANDOM GENERATORS?	14.1	22.7	3.6	12.5	316	362	362	362	77.8	.0
M 776	M2-13 DO YOU USE TIME MARK GENERATORS?	18.3	22.7	10.7	37.5	316	362	362	362	44.4	.0
M 777	M2-14 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS?	69.0	75.0	0.0	0.0	316	362	362	362	100.0	.0
M 783	M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?	60.6	68.2	10.7	0.0	316	362	362	362	100.0	.0
M 785	M3-8 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?	43.7	56.8	0.0	0.0	316	362	362	362	77.8	.0
M 786	M3-9 DO YOU PERFORM TASKS ON MOTOR FIELD COILS?	56.3	65.9	0.0	0.0	316	362	362	362	100.0	.0
M 787	M3-10 DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?	46.5	56.8	0.0	0.0	316	362	362	362	88.9	.0
M 788	M3-11 DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?	59.2	72.7	0.0	0.0	316	362	362	362	100.0	.0
M 789	M3-12 DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?	40.8	52.3	0.0	0.0	316	362	362	362	44.4	.0
M 790	M3-13 DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?	33.8	43.2	0.0	0.0	316	362	362	362	55.6	.0
M 791	M3-14 DO YOU PERFORM ANY TASKS ON MOTOR COMPUTERS?	35.2	45.5	0.0	0.0	316	362	362	362	44.4	.0
M 792	M3-15 DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?	23.9	31.8	0.0	0.0	316	362	362	362	11.1	.0
M 793	M3-16 DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOR?	37.4	40.9	0.0	0.0	316	362	362	362	33.3	.0
M 794	M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR?	21.1	27.3	0.0	0.0	316	362	362	362	33.3	.0
M 795	M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?	59.2	79.5	0.0	0.0	316	362	362	362	100.0	.0
M 796	M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS?	14.1	6.8	0.0	0.0	316	362	362	362	100.0	.0
M 797	M3-20 DO YOU WORK WITH INDUCTION MOTORS?	8.5	2.3	0.0	0.0	316	362	362	362	77.8	.0
M 798	M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS?	8.5	2.3	0.0	0.0	316	362	362	362	77.8	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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0 TSK TITLES

706 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
16.9	11.4	10.7	.0	.0	.0	.0	88.9	.0
12.7	12.6	.0	.0	.0	.0	.0	66.7	.0
4.2	2.3	.0	.0	.0	.0	.0	33.3	.0
35.2	9.1	28.6	.0	2.1	.0	.0	33.3	.0
35.2	9.1	7.6	.0	2.1	.0	.0	33.3	.0
35.2	11.4	32.1	.0	4.7	.0	.0	33.3	.0
33.8	6.8	.0	.0	.0	.0	.0	33.3	.0
26.8	9.1	.0	.0	2.1	3.0	3.7	33.3	.0
26.8	6.8	17.9	.0	2.1	3.0	3.7	33.3	.0
15.5	4.5	14.3	.0	.0	.0	.0	33.3	.0
29.6	31.8	7.6	.0	2.1	.0	.0	44.4	.0
16.9	13.6	3.6	.0	2.1	.0	.0	55.6	.0
5.6	2.3	3.6	.0	6.4	3.0	3.7	33.3	.0
1.4	.0	7.1	25.0	.0	.0	.0	.0	.0
.0	.0	3.6	12.5	.0	.0	.0	.0	.0
.0	.0	3.6	12.5	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	7.1	25.0	.0	.0	.0	.0	.0
.0	.0	7.1	25.0	.0	.0	.0	.0	.0
.0	.0	7.1	25.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	3.6	10.0	.0	.0	.0	.0	.0
1.4	.0	7.6	12.5	.0	.0	.0	.0	.0
1.4	.0	7.6	12.5	.0	.0	.0	.0	.0
1.4	.0	7.1	25.0	.0	.0	.0	.0	.0
35.2	25.0	.0	.0	2.1	3.0	3.7	89.9	.0

M 799 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?

M 800 M3-23 DO YOU WORK WITH SERVOS OR SYNCHROS MOTORS?

M 801 M3-24 DO YOU WORK WITH SHADED-POLE MOTORS?

M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?

M 803 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?

M 804 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?

M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?

M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?

M 807 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?

M 808 M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?

M 811 M1-3 DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?

M 812 M1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?

M 819 M1-11 DO YOU CONSIDER BALLASTIC RESPONSE OF METER MOVEMENTS?

M 821 M2-1 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1; IF YES, CONTINUE.

N 822 M2-2 DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 823 M2-3 DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 824 M2-4 DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 825 M2-5 DO YOU TROUBLESHOOT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 826 M2-6 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS?

N 827 M2-7 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS?

N 828 M2-8 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?

N 829 M2-9 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?

N 830 M2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?

N 831 M2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS?

N 832 M2-12 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS?

N 833 M3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 01-1; IF YES, CONTINUE.

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D TSM	TITLES	306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA ACC
N 834	N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?	31.0	22.7	.0	.0	.0	.0	.0	77.8	.0
N 835	N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?	32.4	22.7	.0	.0	.0	.0	.0	88.9	.0
N 836	N3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)?	21.1	15.9	.0	.0	.0	.0	.0	55.6	.0
N 837	N3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)?	15.5	11.4	.0	.0	.0	.0	.0	55.6	.0
N 838	N3-6 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?	19.7	9.1	.0	.0	.0	.0	.0	55.6	.0
N 839	N3-7 DO YOU USE OR REFER TO INTEGRATING CIRCUITS?	25.4	11.4	.0	.0	.0	.0	.0	66.7	.0
N 840	N3-8 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT?	15.5	13.6	.0	.0	.0	.0	.0	44.4	.0
N 841	N3-9 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION?	11.3	6.8	.0	.0	.0	.0	.0	33.3	.0
N 842	N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE CIRCUITS?	26.8	18.2	.0	.0	.0	.0	.0	88.9	.0
N 843	N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?	8.5	6.8	.0	.0	.0	.0	.0	44.4	.0
N 844	N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?	15.5	6.8	.0	.0	.0	.0	.0	68.9	.0
N 845	N3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID STATE CIRCUITS?	7.0	2.3	.0	.0	.0	.0	.0	77.8	.0
N 846	N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE CIRCUITS?	9.9	6.8	.0	.0	.0	.0	.0	88.9	.0
N 847	N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?	28.2	18.2	.0	.0	.0	.0	.0	77.8	.0
N 848	N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?	21.1	13.6	.0	.0	.0	.0	.0	77.8	.0
N 849	N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?	15.5	9.1	.0	.0	.0	.0	.0	77.8	.0
N 850	N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS?	26.8	18.2	.0	.0	.0	.0	.0	66.7	.0
N 851	N3-19 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS?	25.4	15.9	.0	.0	.0	.0	.0	66.7	.0
N 852	N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS?	23.9	13.6	.0	.0	2.1	3.0	3.7	66.7	.0
N 853	N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS?	25.4	15.9	.0	.0	2.1	3.0	3.7	77.8	.0
O 854	O1-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-1; IF YES, CONTINUE.	1.4	.0	14.3	.0	.0	.0	.0	.0	.0
O 855	O1-2 DO YOU INSPECT SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	7.1	.0	.0	.0	.0	.0	.0
O 856	O1-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0
O 857	O1-4 DO YOU ALIGN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	3.6	.0	.0	.0	.0	.0	.0
O 858	O1-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.4	.0	10.7	.0	.0	.0	.0	.0	.0
O 859	O1-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	1.4	.0	3.6	.0	.0	.0	.0	.0	.0

TASKS WITH 30 PERCENT MP APPROX AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
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O TSM TITLES

306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
0 860 01-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDE BAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	2.8	.0	7.6	.0	.0	.0	.0	.0
0 861 01-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDE BAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	2.8	.0	.0	.0	.0	.0	.0	.0
0 862 01-9 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM AUDIO AMPLIFIER STAGE?	1.4	.0	.0	.0	.0	.0	.0	.0
0 863 01-10 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 864 01-11 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 865 01-12 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?	1.4	.0	.0	.0	.0	.0	.0	.0
0 866 01-13 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 867 01-14 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 868 01-15 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?	1.4	.0	3.6	.0	.0	.0	.0	.0
0 869 01-16 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 870 01-17 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?	1.4	.0	.0	.0	.0	.0	.0	.0
0 871 01-18 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?	1.4	.0	7.1	.0	.0	.0	.0	.0
0 872 01-19 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?	1.4	.0	3.6	.0	.0	.0	.0	.0
0 873 01-20 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?	.0	.0	3.6	.0	.0	.0	.0	.0
0 874 01-21 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?	.0	.0	.0	.0	.0	.0	.0	.0
0 875 01-22 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?	.0	.0	7.1	.0	.0	.0	.0	.0
0 876 01-23 DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	3.6	.0	.0	.0	.0	.0
0 877 01-24 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	3.6	.0	.0	.0	.0	.0
0 878 01-25 DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	.0
0 879 01-26 DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	.0
0 880 01-27 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB OR ISB TRANSMITTERS?	.0	.0	.0	.0	.0	.0	.0	.0
0 881 01-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	.0
0 882 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB RECEIVER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	.0
0 883 01-30 DO YOU PERFORM A RADIOLOGIC STATION ASSESSMENT PROGRAMS (A 1612)	.0	.0	.0	.0	.0	.0	.0	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

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USAFOMC (ATC) RANDOLPH AFB TX

C TSM	TITLES	306 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *(C)
0 884	02-1 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 03-1; IF YES, CONTINUE.	2.8	2.3	.0	.0	6.4	9.1	11.1	11.1	.0
0 885	02-2 DO YOU INSPECT PULSE MODULATION SYSTEMS?	2.8	2.3	.0	.0	4.3	6.1	7.4	11.1	.0
0 886	02-3 DO YOU CLEAN PULSE MODULATION SYSTEMS?	2.8	2.3	.0	.0	4.3	6.1	7.4	11.1	.0
0 887	02-4 DO YOU ALIGN PULSE MODULATION SYSTEMS?	2.8	2.3	.0	.0	2.1	3.0	3.7	11.1	.0
0 888	02-5 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS?	2.8	2.3	.0	.0	6.4	9.1	11.1	11.1	.0
0 889	02-6 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS?	1.4	.0	.0	.0	4.3	6.1	7.4	11.1	.0
0 890	02-7 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	2.8	2.3	.0	.0	6.4	9.1	11.1	11.1	.0
0 891	02-8 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	1.4	.0	.0	.0	4.3	6.1	7.4	11.1	.0
0 892	02-9 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 893	02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?	4.2	2.3	.0	.0	4.3	6.1	7.4	11.1	.0
0 894	02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	11.1	.0
0 895	02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?	4.2	.0	.0	.0	2.1	3.0	3.7	11.1	.0
0 896	02-13 DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?	2.8	.0	.0	.0	4.3	6.1	7.4	11.1	.0
0 897	02-14 DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?	4.2	.0	.0	.0	.0	.0	.0	11.1	.0
0 898	02-15 DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?	2.8	.0	.0	.0	6.4	9.1	11.1	11.1	.0
0 899	02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?	.0	.0	.0	.0	.0	.0	.0	11.1	.0
0 900	02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODE STAGE?	.0	.0	.0	.0	.0	.0	.0	11.1	.0
0 901	02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	1.4	.0	.0	.0	2.1	3.0	3.7	11.1	.0
0 902	02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMER STAGE?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 903	02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRON STAGE?	.0	.0	.0	.0	.0	.0	.0	11.1	.0
0 904	02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 905	02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?	.0	.0	.0	.0	.0	.0	.0	11.1	.0
0 906	02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 907	02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 908	02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0
0 909	02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	1.4	.0	.0	.0	2.1	3.0	3.7	11.1	.0

TASKS WITH 50 PERCENT MP ACROSS AFSC'S BY TAFMS

O TSK

TITLE

0 910 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO

AMPLIFIER STAGE?

0 911 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER

VIDEO AMPLIFIER STAGE?

0 912 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY

(PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?

0 913 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)

WHEN WORKING WITH PULSE MODULATION SYSTEMS?

0 914 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW) WHEN WORKING

WITH PULSE MODULATION SYSTEMS?

0 915 02-32 DO YOU USE OR REFER TO PULSE SHAPE WHEN WORKING WITH

PULSE MODULATION SYSTEMS?

0 916 02-33 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH

PULSE MODULATION SYSTEMS?

0 917 02-34 DO YOU USE OR REFER TO AVERAGE POWER WHEN WORKING

WITH PULSE MODULATION SYSTEMS?

0 918 02-35 DO YOU USE OR REFER TO DUTY CYCLE (DC) WHEN WORKING

WITH PULSE MODULATION SYSTEMS?

0 919 02-36 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE

RECURRENCE FREQUENCY (PRF)?

0 920 02-37 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE

RECURRENCE FREQUENCY (PRF)?

0 921 02-38 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR

PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS?

0 922 02-39 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH PULSE

MODULATION TRANSMITTER SCHEMATIC DIAGRAMS?

0 923 02-40 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE

MODULATION RECEIVER SCHEMATIC DIAGRAMS?

0 924 03-1 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB? IF NO,

GO TO ITEM PL-1; IF YES, CONTINUE.

0 925 03-2 DO YOU INSPECT ANTENNAS?

0 926 03-3 DO YOU CLEAN ANTENNAS?

0 927 03-4 DO YOU PHYSICALLY ALIGN ANTENNAS?

0 928 03-5 DO YOU ELECTRICALLY ALIGN ANTENNAS?

0 929 03-6 DO YOU THROULESHOOT TO ANTENNAS?

0 930 03-7 DO YOU THROULESHOOT TO ANTENNA COMPONENTS?

0 931 03-8 DO YOU REMOVE OR INSTALL ANTENNAS?

0 932 03-9 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS?

0 933 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING

REPRESENTATIONS OF R OR ELECTRIC FIELD LINES?

0 934 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING

REPRESENTATIONS OF R OR MAGNETIC FIELD LINES?

0 935 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 936 03-13 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 937 03-14 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 938 03-15 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 939 03-16 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 940 03-17 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 941 03-18 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 942 03-19 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 943 03-20 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 944 03-21 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 945 03-22 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 946 03-23 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 947 03-24 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 948 03-25 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 949 03-26 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 950 03-27 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 951 03-28 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 952 03-29 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 953 03-30 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 954 03-31 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 955 03-32 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 956 03-33 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 957 03-34 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 958 03-35 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 959 03-36 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 960 03-37 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 961 03-38 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 962 03-39 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 963 03-40 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 964 03-41 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 965 03-42 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 966 03-43 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 967 03-44 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 968 03-45 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 969 03-46 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 970 03-47 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 971 03-48 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 972 03-49 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 973 03-50 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

0 974 03-51 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 975 03-52 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 976 03-53 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 977 03-54 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 978 03-55 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 979 03-56 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 980 03-57 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 981 03-58 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 982 03-59 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 983 03-60 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 984 03-61 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 985 03-62 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 986 03-63 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 987 03-64 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 988 03-65 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 989 03-66 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 990 03-67 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 991 03-68 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 992 03-69 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 993 03-70 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 994 03-71 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 995 03-72 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 996 03-73 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 997 03-74 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 998 03-75 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 999 03-76 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1000 03-77 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1001 03-78 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1002 03-79 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1003 03-80 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1004 03-81 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1005 03-82 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

0 1006 03-83 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1007 03-84 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1008 03-85 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1009 03-86 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1010 03-87 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1011 03-88 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1012 03-89 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1013 03-90 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1014 03-91 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1015 03-92 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1016 03-93 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1017 03-94 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1018 03-95 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1019 03-96 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1020 03-97 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1021 03-98 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1022 03-99 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1023 04-0 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1024 04-1 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1025 04-2 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1026 04-3 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1027 04-4 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1028 04-5 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1029 04-6 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

0 1030 04-7 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES

OF A FIELD?

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

O TSK	TITLES	306 (M)	306 (M)	316 XDF (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA **
0 937	03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR?	1.4	.0	.0	.0	2.1	3.0	3.7	.0	.0
0 938	03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
0 939	03-16 DO YOU WORK WITH HERTZ BASIC ANTENNAS?	.0	.0	14.3	.0	.0	.0	.0	.0	.0
0 940	03-17 DO YOU WORK WITH MARCONI BASIC ANTENNAS?	.0	.0	3.6	.0	.0	.0	.0	.0	.0
0 941	03-18 DO YOU WORK WITH RHOMBIC BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 942	03-19 DO YOU WORK WITH DIPOLE BASIC ANTENNAS?	1.4	2.3	3.6	.0	.0	.0	.0	.0	.0
0 943	03-20 DO YOU WORK WITH SCIMITAR BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 944	03-21 DO YOU WORK WITH PARABOLIC BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 945	03-22 DO YOU WORK WITH GROUND PLANE BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 946	03-23 DO YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?	1.4	2.3	3.6	.0	.0	.0	.0	.0	.0
0 947	03-24 DO YOU WORK WITH BROADSIDE ARRAYS?	1.4	2.3	7.1	.0	.0	.0	.0	.0	.0
0 948	03-25 DO YOU WORK WITH END-FIRE ARRAYS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 949	03-26 DO YOU WORK WITH CARDIOID ARRAYS?	1.4	.0	3.6	.0	.0	.0	.0	.0	.0
0 950	03-27 DO YOU WORK WITH COLLINEAR ARRAYS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0
0 951	03-28 DO YOU WORK WITH PHASE ARRAYS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 952	03-29 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 953	03-30 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 954	03-31 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 955	03-32 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 956	03-33 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 957	03-34 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 958	03-35 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?	1.4	2.3	.0	.0	.0	.0	.0	.0	.0
0 959	03-36 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 960	03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 961	03-38 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 962	03-39 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 963	03-40 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 964	03-41 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T KNOW WHAT KIND OF ELEMENTS?	.0	.0	17.9	.0	.0	.0	.0	.0	.0
0 965	03-42 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?	1.4	2.3	7.1	.0	.0	.0	.0	.0	.0
0 966	03-43 DO YOU WORK ON BIDIRECTIONAL ANTENNAS?	1.4	2.3	7.6	.0	.0	.0	.0	.0	.0

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ELECTRONIC PRINCIPLES INVENTORY SHEPPARD TECHNICAL
TRAINING CENTER AFPT 98-EPI-485(U) AIR FORCE
OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX J

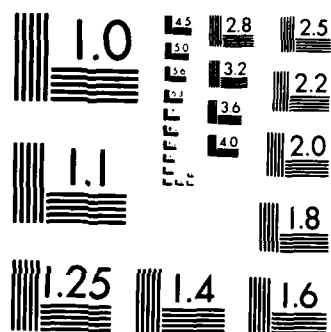
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOPC (ATC) RANDOLPH AFB TX

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D TSM TITLES

306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA #C#
P 991	P1-23	DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES?	.0	.0	4.3	3.0	3.7	.0
P 992	P1-24	DO YOU USE OR REFER TO THE TERM CUT OFF FREQUENCY OF TRANSMISSION LINES?	.0	.0	2.1	.0	.0	.0
P 993	P2-25	DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES?	.0	.0	2.1	.0	.0	.0
P 994	P1-26	DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES?	.0	.0	4.3	3.0	3.7	.0
P 995	P1-27	DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTHS FOR GIVEN FREQUENCIES?	.0	.0	4.3	3.0	3.7	.0
P 996	P1-28	DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES?	.0	.0	6.4	3.0	3.7	.0
P 997	P1-29	DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES?	1.4	.0	8.5	6.1	7.4	.0
P 998	P1-30	DO YOU WORK WITH RESONANT TRANSMISSION LINES?	1.4	.0	.0	.0	.0	.0
P 999	P1-31	DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING?	1.4	.0	10.6	9.1	11.1	.0
P1000	P2-1	DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM P3-1; IF YES, CONTINUE.	.0	.0	.0	.0	.0	.0
P1001	P2-2	DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0
P1002	P2-3	DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS?	1.4	.0	.0	.0	.0	.0
P1003	P2-4	DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS?	1.4	.0	.0	.0	.0	.0
P1004	P2-5	DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS?	1.4	.0	.0	.0	.0	.0
P1005	P2-6	DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS?	1.4	.0	.0	.0	.0	.0
P1006	P2-7	DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES?	1.4	.0	.0	.0	.0	.0
P1007	P2-8	DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS?	1.4	.0	.0	.0	.0	.0
P1008	P2-9	DO YOU REMOVE OR INSTALL DUMMY LOADS?	1.4	.0	.0	.0	.0	.0
P1009	P2-10	DO YOU REMOVE OR INSTALL E BENDS?	1.4	.0	.0	.0	.0	.0
P1010	P2-11	DO YOU REMOVE OR INSTALL H BENDS?	1.4	.0	.0	.0	.0	.0
P1011	P2-12	DO YOU REMOVE OR INSTALL OTHER BENDS?	1.4	.0	.0	.0	.0	.0
P1012	P2-13	DO YOU REMOVE OR INSTALL CHOKE JOINTS?	1.4	.0	.0	.0	.0	.0
P1013	P2-14	DO YOU REMOVE OR INSTALL ROTATING JOINTS?	1.4	.0	.0	.0	.0	.0
P1014	P2-15	DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS?	1.4	.0	.0	.0	.0	.0
P1015	P2-16	DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS?	1.4	.0	.0	.0	.0	.0
P1016	P2-17	DO YOU REMOVE OR INSTALL DUPLEXERS OR MIXERS?	1.4	.0	.0	.0	.0	.0
P1017	P2-18	DO YOU REMOVE OR INSTALL WAVEGUIDE SHUTTERS?	1.4	.0	.0	.0	.0	.0
P1018	P2-19	DO YOU REMOVE OR INSTALL TRANSMIT (TR) OR ANTITRANSMIT (ATR) TUBES?	1.4	.0	.0	.0	.0	.0
P1019	P2-20	DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES?	1.4	.0	2.1	3.0	3.7	.0
P1020	P2-21	DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES?	1.4	.0	2.1	3.0	3.7	.0
P1021	P2-22	DO YOU USE OR REFER TO CUT OFF FREQUENCY OF WAVEGUIDES?	1.4	.0	.0	.0	.0	.0
P1022	P2-23	DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0

TASKS WITH 30 PERCENT HP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

O TSK	TITLES	306 X1 (M)	306 X2 (M)	316 X0F (M)	177 X2F (M)	316 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN
P1104	P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF HELIX COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1105	P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1106	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1107	P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1108	P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1109	P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
P1110	P3-67 DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
P1111	P3-68 DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
P1112	P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
P1113	P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
P1114	P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1115	P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1116	P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1117	P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1118	P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1119	P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1120	P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
Q1121	Q1-1 DO YOU USE OR REFER TO STORAGE RESISTERS?	42.3	25.0	10.7	12.5	.0	.0	.0	77.8	.0
Q1122	Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?	43.7	25.0	3.6	12.5	.0	.0	.0	77.8	.0
Q1123	Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS?	39.4	25.0	7.1	12.5	.0	.0	.0	77.8	.0
Q1124	Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE REGISTERS?	39.4	25.0	3.6	12.5	.0	.0	.0	77.8	.0
Q1126	Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?	33.8	20.5	.0	.0	2.1	3.0	3.7	66.7	.0
Q1127	Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED?	40.8	22.7	.0	.0	2.1	3.0	3.7	55.6	.0
Q1128	Q2-1 DO YOU WORK WITH STORAGE DEVICES IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.	42.3	18.2	32.1	25.0	2.1	.0	.0	22.2	.0
Q1129	Q2-2 DO YOU USE OR REFER TO DELAY LINES?	4.2	2.3	.0	.0	.0	.0	.0	11.1	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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O TSK TITLES

	706 X1 (M)	306 X2 (M)	316 XOF (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN
Q1161 Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	5.6	.0	.0	.0	2.1	.0	.0	44.4	.0
Q1162 Q3-8 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	1.4	.0	.0	.0	2.1	.0	.0	44.4	.0
Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS BUT DON'T KNOW WHICH FUNCTION?	5.6	.0	.0	.0	.0	.0	.0	22.2	.0
Q1164 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?	7.0	.0	.0	.0	.0	.0	.0	44.4	.0
Q1165 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?	2.8	.0	.0	.0	.0	.0	.0	44.4	.0
Q1166 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?	7.0	.0	.0	.0	.0	.0	.0	44.4	.0
Q1167 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?	9.9	.0	.0	.0	.0	.0	.0	44.4	.0
Q1168 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?	2.8	.0	.0	.0	.0	.0	.0	44.4	.0
Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?	12.7	.0	.0	.0	2.1	.0	.0	55.6	.0
Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (D/A) CONVERTERS?	15.5	.0	.0	.0	2.1	.0	.0	55.6	.0
Q1171 Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?	8.5	.0	.0	.0	2.1	.0	.0	55.6	.0
Q1172 Q3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?	9.9	.0	.0	.0	2.1	.0	.0	44.4	.0
Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?	15.5	2.3	.0	.0	.0	.0	.0	33.3	.0
Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?	15.5	2.3	.0	.0	2.1	3.0	3.7	66.7	.0
Q1175 Q3-21 WAS THE COMPUTER OR LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT DUTIES?	19.7	2.3	.0	.0	.0	.0	.0	11.1	.0
Q1176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A "0" PREFIX?	.0	.0	.0	.0	.0	.0	.0	.0	.0
R1177 R1-1 DO YOU WORK WITH PHANTASTRON CIRCUITRY? IF NO, GO TO ITEM R2-1. IF YES, CONTINUE.	1.4	2.3	.0	.0	.0	.0	.0	.0	.0
R1178 R1-2 PHANTASTRON CIRCUITRY HAS VARIABLE-DELAY APPLICATIONS IN MY JOB.	.0	.0	.0	.0	.0	.0	.0	.0	.0
R1179 R1-3 PHANTASTRON CIRCUITRY HAS SEARCH-LOCK AUTOMATIC FREQUENCY CONTROLS (AFC) APPLICATIONS IN MY JOB.	.0	.0	.0	.0	.0	.0	.0	.0	.0
R1180 R1-4 PHANTASTRON CIRCUITRY HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	2.8	2.3	.0	.0	.0	.0	.0	.0	.0
F1181 R1-5 PHANTASTRON CIRCUITRY HAS BISTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	2.8	2.3	.0	.0	.0	.0	.0	.0	.0
R1182 R1-6 PHANTASTRON CIRCUITRY HAS FREE-RUNNING MULTIVIBRATORS APPLICATIONS IN MY JOB.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
R1183 R2-1 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS? IF NO, GO TO ITEM R3-1; IF YES, CONTINUE.	47.9	36.4	7.1	75.0	.0	.0	.0	44.4	.0

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS										OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX									
O TSM	TITLES	306 X1 (M)	306 X2 (M)	316 XOF (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 XO (M)	MIN IMA *C*									
T1265	T2-22 DO YOU WORK WITH ACTIVE MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1266	T2-23 DO YOU WORK WITH PUMPING SOURCES?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1267	T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1268	T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1269	T2-26 DO YOU WORK WITH HELICAL FLASHTUBES?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0									
T1270	T2-27 DO YOU WORK WITH RUBY MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1271	T2-28 DO YOU WORK WITH HELIUM-NEON MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1272	T2-29 DO YOU WORK WITH HELIUM-XENON MATERIALS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1273	T2-30 DO YOU WORK WITH XENON MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1274	T2-31 DO YOU WORK WITH CESIUM-HELIUM MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1275	T2-32 DO YOU WORK WITH ARGON MATERIALS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1276	T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1277	T2-34 DO YOU WORK WITH GALLIUM ARSENIDE MATERIALS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1278	T3-1 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE TUBES (DVST), MULTIPLE MODE STORAGE TUBES (MMST), OR SCAN CONVERTER TUBES (SCT)? IF NO, GO TO ITEM T4-1; IF YES, CONTINUE.	4.2	2.3	.0	.0	2.1	3.0	3.7	11.1	.0									
T1279	T3-2 DO YOU INSPECT DVST OR MMST?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0									
T1280	T3-3 DO YOU CLEAN DVST OR MMST?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0									
T1281	T3-4 DO YOU ADJUST OR CALIBRATE DVST OR MMST?	1.4	.0	.0	.0	.0	.0	.0	11.1	.0									
T1282	T3-5 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST?	1.4	.0	.0	.0	.0	.0	.0	.0	.0									
T1283	T3-6 DO YOU TROUBLESHOOT DVST OR MMST CIRCUITS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0									
T1284	T3-7 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS?	1.4	.0	.0	.0	.0	.0	.0	.0	.0									
T1285	T3-8 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF DVST?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1286	T3-9 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MMST?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1287	T3-10 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF SCT?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1288	T3-11 DO YOU PERFORM TASKS ON FLOOD GUNS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1289	T3-12 DO YOU PERFORM TASKS ON WRITE GUNS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1290	T3-13 DO YOU PERFORM TASKS ON READ GUNS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1291	T3-14 DO YOU PERFORM TASKS ON ATTACK GUNS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1292	T3-15 DO YOU PERFORM TASKS ON ERASE GUNS?	.0	.0	.0	.0	.0	.0	.0	.0	.0									
T1293	T3-16 DO YOU PERFORM TASKS ON STORAGE GUNS?	.0	.0	.0	.0	.0	.0	.0	11.1	.0									
T1294	T4-1 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING WITH TELEVISION SYSTEMS INCLUDING LOW LIGHT TELEVISION? IF NO, GO TO ITEM U1-1; IF YES, CONTINUE.	.0	.0	14.3	.0	.0	.0	.0	22.2	.0									
T1295	T4-2 DO YOU INSPECT TELEVISION SYSTEMS?	.0	.0	7.1	.0	.0	.0	.0	23.3	.0									
T1296	T4-3 DO YOU CLEAN TELEVISION SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	23.3	.0									
T1297	T4-4 DO YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?	.0	.0	7.1	.0	.0	.0	.0	23.3	.0									
T1298	T4-5 DO YOU OPERATE TELEVISION SYSTEMS?	.0	.0	14.3	.0	.0	.0	.0	23.3	.0									
T1299	T4-6 DO YOU TROUBLESHOOT AND REPAIR CONNECTIONS OF TV SYSTEMS?	.0	.0	7.6	.0	.0	.0	.0	23.3	.0									
T1300	T4-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF TV SYSTEMS?	.0	.0	7.1	.0	.0	.0	.0	23.3	.0									
T1301	T4-8 DO YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENT PARTS?	.0	.0	3.6	.0	.0	.0	.0	22.2	.0									

TASKS WITH 30 PERCENT MP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

D	TSK	TITLES	306 X1 (M)	306 X2 (M)	316 X0F (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)
	T1302	T4-9 DO YOU REMOVE OR REPLACE TV SYSTEM MAJOR ASSEMBLIES?								
	T1303	T4-10 DO YOU REMOVE OR REPLACE TV SYSTEM COMPONENT PARTS?								
	U1305	U1-2 DO YOU USE OR REFER TO DECIMAL SYSTEMS?	12.7	.0	7.1	.0	.0	.0	.0	22.2
	U1306	U1-3 DO YOU USE OR REFER TO OCTAL SYSTEMS?	12.7	.0	14.3	.0	.0	.0	.0	33.3
	U1307	U1-4 DO YOU USE OR REFER TO PARITY DETECTORS/GENERATORS?	16.9	2.3	.0	.0	.0	.0	.0	22.2
	U1308	U1-5 DO YOU USE OR REFER TO HEXADECIMAL SYSTEMS?	8.5	.0	10.7	37.5	.0	.0	.0	33.3
	U1309	U1-6 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS?	7.0	.0	3.6	.0	.0	.0	.0	22.2
	U1310	U1-7 DO YOU USE OR REFER TO FOUR SYSTEMS?	5.6	.0	.0	.0	.0	.0	.0	22.2
	U1311	U1-8 DO YOU USE OR REFER TO BINARY SYSTEMS?	18.3	.0	10.7	.0	.0	.0	.0	33.3
	U1312	U1-9 DO YOU USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)?	7.0	.0	.0	.0	.0	.0	.0	22.2
	U1313	U1-10 DO YOU USE OR REFER TO DATA WORDS?	14.1	2.3	3.6	.0	2.1	.0	.0	22.2
	U1314	U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?	12.7	2.3	3.6	.0	2.1	.0	.0	22.2
	U1315	U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?	12.7	2.3	3.6	.0	2.1	.0	.0	22.2
	U1316	U1-13 DO YOU USE OR REFER TO STEERING/INFORMATION?	9.9	2.3	3.6	.0	2.1	.0	.0	22.2
	U1317	U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?	9.9	2.3	3.6	.0	2.1	.0	.0	22.2
	U1318	U1-15 DO YOU USE OR REFER TO DAP-16?	.0	.0	.0	.0	.0	.0	.0	11.1
	U1319	U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	8.5	.0	7.1	.0	.0	.0	.0	33.3
	U1320	U1-17 DO YOU USE OR REFER TO CONTROL WORDS?	5.6	2.3	10.7	37.5	2.1	.0	.0	22.2
	U1321	U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?	5.6	2.3	10.7	37.5	2.1	.0	.0	11.1
	U1322	U1-19 DO YOU USE OR REFER TO WRAPAROUND WORDS?	.0	.0	.0	.0	2.1	.0	.0	.0
	U1323	U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?	8.5	.0	17.9	37.5	4.3	.0	.0	33.3
	U1324	U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?	2.8	.0	14.3	37.5	.0	.0	.0	11.1
	U1325	U1-22 DO YOU USE OR REFER TO COMPILEPS?	.0	.0	.0	.0	.0	.0	.0	22.2
	U1326	U1-23 DO YOU USE OR REFER TO ASSEMBLERS?	.0	.0	.0	.0	.0	.0	.0	22.2
	U1327	U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?	4.2	2.3	.0	.0	2.1	.0	.0	33.3
	U1328	U1-25 DO YOU USE OR REFER TO MNEMONICS?	11.3	2.3	.0	.0	.0	.0	.0	22.2
	U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	5.6	.0	.0	.0	.0	.0	.0	22.2
	U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	5.6	.0	7.1	.0	.0	.0	.0	22.2
	U1331	U1-28 DO YOU USE OR REFER TO 'ATLAS'?	.0	.0	.0	.0	.0	.0	.0	11.1
	U1332	U1-29 DO YOU USE OR REFER TO 'ELAN'?	.0	.0	.0	.0	.0	.0	.0	11.1
	U1333	U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?	1.4	.0	.0	.0	2.1	3.0	3.7	22.2
	U1334	U1-31 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING SYSTEMS?	1.4	2.3	3.6	.0	2.1	3.0	3.7	22.2
	U1335	U1-32 DO YOU WRITE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	.0	.0	.0	.0	2.1	3.0	3.7	.0
	U1336	U1-33 DO YOU USE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	1.4	.0	17.9	37.5	6.4	3.0	3.7	22.2
	U1337	U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER CONTROL SECTIONS?	14.1	2.3	3.6	.0	2.1	.0	.0	22.2
	U1338	U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT SECTIONS?	16.9	2.3	7.1	.0	4.3	.0	.0	22.2
	U1339	U1-36 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT SECTIONS?	16.9	2.3	7.1	.0	4.3	.0	.0	22.2
	U1340	U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR SECTIONS?	14.1	2.3	7.1	.0	4.3	.0	.0	22.2

TASKS WITH 30 PERCENT WP ACROSS AFSC'S BY TAFMS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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0 TSK

TITLES

306 (P)	306 (M)	316 XOF (M)	316 X2F (M)	362 X1 (M)	362 X3 (M)	362 X4 (M)	918 X0 (M)	MIN IMA *C*
16.9	2.3	.0	.0	4.3	.0	.0	11.1	.0
16.0	2.3	.0	.0	4.3	.0	.0	11.1	.0
16.3	2.3	7.1	.0	4.3	.0	.0	33.3	.0
15.5	2.3	7.1	.0	4.3	.0	.0	33.3	.0
16.3	2.3	7.1	.0	4.3	.0	.0	33.3	.0
16.0	2.3	3.6	.0	4.3	.0	.0	33.3	.0
16.9	2.3	7.1	.0	4.3	.0	.0	33.3	.0
.0	.0	.0	.0	2.1	3.0	3.7	.0	.0
.0	.0	.0	.0	.0	.0	.0	11.1	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0
2.8	2.3	3.6	.0	4.3	3.0	3.7	11.1	.0
1.4	.0	.0	.0	.0	.0	.0	33.3	.0
1.4	.0	.0	.0	.0	.0	.0	33.3	.0
1.4	2.3	3.6	.0	2.1	.0	.0	33.3	.0
1.4	2.3	.0	.0	2.1	.0	.0	33.3	.0
.0	.0	.0	.0	.0	.0	.0	33.3	.0
2.8	.0	3.6	.0	2.1	.0	.0	33.3	.0
.0	.0	.0	.0	2.1	3.0	3.7	22.0	.0
1.4	.0	.0	.0	4.7	3.0	3.7	22.0	.0
4.2	2.3	.0	.0	.0	.0	.0	33.3	.0
8.5	9.1	.0	.0	25.0	21.0	11.1	33.3	.0
1.4	.0	.0	.0	2.1	.0	.0	33.3	.0
1.4	.0	.0	.0	2.1	.0	.0	33.3	.0
4.2	2.3	.0	.0	2.1	3.0	3.7	22.0	.0

U1341 U1-30 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTION?

U1342 U1-30 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTION?

U1343 U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT DEVICES?

U1344 U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE DEVICES?

U1345 U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT DEVICES?

U1346 U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?

U1347 U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR DEVICES?

U1348 U1-45 DO YOU USE FORTRAN PROGRAMMING LANGUAGE?

U1349 U1-46 DO YOU USE COBOL PROGRAMMING LANGUAGE?

U1350 U1-47 DO YOU USE RPG PROGRAMMING LANGUAGE?

U1351 U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?

U1352 U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1353 U1-50 DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1354 U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1355 U1-52 DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1356 U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1357 U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1358 U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1359 U1-56 DO YOU USE ADDITIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1360 U1-57 DO YOU USE ENOUGH/BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1361 U2-1 DO YOU USE RECEIVERS TO EXPRESS AMPLIFICATION AND ATTENUATION?

U1362 U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?

U1363 U2-3 DO YOU USE LOGS TO COMPUTE ATTENUATION IN DECIBELS?

U1364 U2-6 DO YOU USE A UNIT NO OR 3444 TEST SET TO ALIGN AUDIO EQUIPMENT?

PERCENT 5-SKILL LEVEL MEMBERS PERFORMING

MINIMUM PERCENT 5-SKILL LEVEL MEMBERS PERFORMING

VECTOR TYPE CODES:

- (T) = % TIME SPENT BY ALL MEMBERS
- (M) = % MEMBERS PERFORMING
- (F) = TASK FACTOR
- (D) = DICHOTOMOUS SET
- (B) = % TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	MEAN	SD	DESCRIPTION	FACTOR #
1	M	306 51	66		DAFSC 30651 AIRMEN	2
2	M	306 52	161		DAFSC 30652 AIRMEN	4
3	M	31650F	29		DAFSC 31650F AIRMEN	6
4	M	31652F	16		DAFSC 31652F AIRMEN	8
5	M	362 51	106		DAFSC 36251 AIRMEN	10
6	M	362 53	21		DAFSC 36253 AIRMEN	12
7	M	362 54	114		DAFSC 36254 AIRMEN	14
8	M	918 50	44		DAFSC 91850 AIRMEN	16
9	-	MINIMA			MINIMUM VALUE OF THE FIRST 8 INPUT VECTORS	

PERCENT 5-SKILL LEVEL MEMBERS PERFORMING

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MINIMUM PERCENT 5-SKILL LEVEL MEMBERS PERFORMING

D TASK TITLES

A 12 A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?

A 14 A2-3 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM OHM?

A 22 A2-11 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?

B 61 B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?

B 60 B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?

A 17 A2-6 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?

E 277 E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.

N 809 N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.

E 281 E3-5 DO YOU TROUBLESHOOT RELAYS?

N 816 N1-8 DO YOU ZERO OHMMETERS?

N 813 N1-5 DO YOU READ METER SCALES?

B 62 B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?

A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

H 467 H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.

E 289 E3-13 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?

E 290 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?

H 468 H2-2 DO YOU INSPECT POWER SUPPLIES?

A 27 A2-12 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM WATTAGE?

H 471 H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?

E 293 E3-17 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?

E 291 E3-15 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?

E 292 E3-16 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?

B 67 B1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE POWER?

H 472 H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?

B 70 B2-3 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM AVERAGE VOLTAGE (DC) IN YOUR PRESENT JOB?

A 40 A3-16 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

306	306	316	316	362	362	362	918	MIN
51	52	50F	52F	51	53	54	50	IMA
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	*C*
92.4	95.7	100.0	100.0	94.3	100.0	95.6	100.0	92.4
86.4	91.9	89.7	100.0	91.5	90.5	82.3	100.0	83.3
89.4	92.5	89.7	100.0	88.7	95.2	82.5	100.0	82.5
86.4	91.3	93.1	87.5	90.6	85.7	80.7	100.0	80.7
81.8	88.2	82.8	87.5	90.6	85.7	74.6	100.0	74.6
83.3	88.8	75.9	87.5	87.7	85.7	73.7	100.0	73.7
78.8	67.7	69.0	81.3	73.6	81.0	77.2	90.9	67.7
68.2	73.3	86.2	75.0	67.0	66.7	62.3	88.6	62.3
72.7	60.9	65.5	81.3	80.2	81.0	75.4	93.2	60.9
66.7	75.2	72.4	81.3	67.9	66.7	60.5	84.1	60.5
68.2	76.4	86.2	75.0	66.0	66.7	59.6	88.6	59.6
71.2	84.5	51.7	81.3	84.0	66.7	68.4	97.7	51.7
69.7	73.9	65.5	81.3	69.8	71.4	48.2	97.7	48.2
89.4	79.5	86.2	81.3	45.3	81.0	86.8	93.2	45.3
63.6	45.3	51.7	81.3	57.5	52.4	44.7	90.9	44.7
63.6	44.7	51.7	81.3	57.5	52.4	45.6	90.9	44.7
84.8	79.5	69.0	75.0	44.3	81.0	82.5	90.9	44.3
60.6	73.9	89.7	81.3	60.4	66.7	43.9	97.7	43.9
86.4	75.2	55.2	62.5	35.8	81.0	57.9	90.9	35.8
51.5	34.8	34.5	81.3	68.9	47.6	48.2	84.1	34.5
50.0	33.5	48.3	81.3	50.0	42.9	46.5	88.6	33.5
51.5	33.5	40.3	81.3	48.1	38.1	43.9	88.6	33.5
36.4	47.2	34.5	31.7	52.8	42.9	37.7	59.1	31.3
86.4	68.3	69.0	75.0	29.2	81.0	38.6	93.2	29.2
51.5	62.1	31.0	75.7	43.4	57.1	28.9	86.4	28.9
80.8	82.6	27.6	75.0	74.5	76.2	48.2	95.5	27.6

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D TASK TITLES

- E 280 E3-4 DO YOU INSPECT RELAYS?
H 480 H2-14 DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
B 64 B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?
C 126 C2-1 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C3-1; IF YES, CONTINUE.
E 263 E3-7 DO YOU REMOVE OR REPLACE RELAYS?
N 815 M1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?
A 2 A1-2 DO YOU USE PUBLICATIONS, SUCH AS TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB?
B 72 B2-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM FREQUENCY IN YOUR PRESENT JOB?
C 149 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?
H 470 H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?
H 460 M1-8 DO YOU USE OR REFER TO LED-SYMBOLS COMPONENTS?
N 818 M1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)?
A 24 A2-13 DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?
A 25 A3-1 DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES, CONTINUE.
C 97 C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1; IF YES, CONTINUE.
C 138 C2-13 DO YOU WORK WITH POWER TRANSFORMERS?
H 483 H2-17 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 457 M1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS?
B 68 B2-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?
N 814 M1-6 DO YOU EXTEND THE RANGE OF AMMETERS?
N 817 M1-9 DO YOU ZERO AMMETERS?
N 820 M1-12 DO YOU CONSIDER OTHER METER MOVEMENTS?
A 13 A2-2 DO YOU USE PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE THE TERM ELECTROMOTIVE FORCE (EMF)?
A 29 A3-5 DO YOU MEASURE RESISTORS?
A 75 A3-11 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY POTENTIOMETERS?
A 41 A3-17 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
A 47 A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE CIRCUITS?

306	306	316	316	362	362	362	918	MIN
51	52	50F	52F	51	53	54	50	IMA
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	ACC
75.8	61.5	27.6	81.3	81.1	81.0	79.8	93.2	27.6
81.8	68.3	37.9	81.3	34.0	66.7	27.2	93.2	27.2
68.2	49.1	34.5	75.0	68.9	71.4	25.4	84.1	25.4
71.2	67.7	27.6	75.0	28.3	57.1	24.6	93.2	24.6
74.2	64.0	24.1	81.3	76.4	81.0	60.5	90.9	24.1
37.9	39.8	41.4	25.0	36.8	23.8	24.6	52.3	23.8
33.3	32.3	27.6	68.8	34.9	47.6	21.1	70.5	21.1
72.7	59.6	51.7	68.8	63.2	90.5	20.2	93.2	20.2
74.2	69.6	24.1	75.0	29.2	66.7	20.2	95.5	20.2
86.4	67.7	62.1	75.0	35.8	76.2	19.3	90.9	19.3
77.3	46.6	20.7	68.8	18.9	19.0	22.8	95.5	18.9
33.3	36.0	24.1	50.0	22.6	23.8	18.4	54.3	18.4
24.2	34.2	17.2	56.3	48.1	28.6	33.3	79.5	17.2
80.3	78.3	17.2	62.5	68.9	71.4	43.0	77.3	17.2
80.3	75.8	17.2	75.0	62.3	57.1	40.4	93.2	17.2
74.2	68.3	17.2	68.8	27.4	52.4	20.2	93.2	17.2
66.7	52.2	17.2	50.0	30.2	23.8	26.3	70.5	17.2
84.4	75.8	24.1	81.3	17.0	61.9	25.4	93.2	17.0
45.5	47.8	20.7	37.5	26.4	52.4	16.7	90.9	16.7
25.8	31.1	27.6	18.8	30.2	14.3	15.8	45.5	14.3
24.2	29.2	71.0	62.5	32.1	14.3	23.7	56.8	14.3
22.7	28.0	20.7	25.0	24.5	14.3	17.5	43.2	14.3
39.4	49.7	13.8	25.0	38.7	38.1	27.2	72.7	13.8
81.8	80.7	13.8	81.3	66.0	85.7	33.3	97.7	13.8
84.4	77.0	13.8	75.0	63.2	66.7	32.5	97.7	13.8
59.1	54.7	13.6	56.3	53.8	61.9	33.3	88.6	13.8
56.1	56.5	13.8	50.0	45.3	42.9	27.2	95.5	13.8

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C TSM	TITLES	306 (M)	306 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	918 50 (M)	MIN IMA ACC
A 45	A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	51.5	52.8	13.8	37.5	49.1	61.9	26.3	84.1	13.8	13.8
A 47	A3-23 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	47.0	56.5	13.8	37.5	41.5	42.9	20.2	95.5	13.8	13.8
A 50	A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	53.0	51.6	13.8	37.5	46.2	57.1	20.2	81.8	13.8	13.8
B 69	B2-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?	80.3	68.9	13.8	81.3	30.2	76.2	14.9	93.2	13.8	13.8
C 112	C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?	87.9	83.9	13.8	81.3	73.6	76.2	48.2	97.7	13.8	13.8
M 458	M1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS?	87.9	62.7	13.8	81.3	19.8	19.0	22.8	93.2	13.8	13.8
M 482	M2-16 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	65.2	50.3	13.8	43.8	25.5	38.1	18.4	81.8	13.8	13.8
M 488	M2-22 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?	56.1	42.9	13.8	50.0	21.7	33.3	13.2	79.5	13.2	13.2
M 489	M2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS?	80.3	51.6	13.8	50.0	14.2	42.9	13.2	84.1	13.2	13.2
A 44	A3-20 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	40.9	41.0	13.8	50.0	33.0	23.8	12.3	72.7	12.3	12.3
A 21	A2-10 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTRON?	40.9	42.9	24.1	56.3	30.2	33.3	10.5	72.7	10.5	10.5
M 481	M2-15 DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?	43.9	29.8	24.1	25.0	13.2	33.3	10.5	72.7	10.5	10.5
M 778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM V1-1; IF YES, CONTINUE.	72.7	77.0	51.7	25.0	19.8	19.0	10.5	88.6	10.5	10.5
A 34	A3-10 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY RHEOSTATS?	50.0	57.8	10.3	75.0	63.2	61.9	37.7	97.7	10.3	10.3
A 42	A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	53.0	54.7	10.3	56.3	50.9	42.9	33.3	88.6	10.3	10.3
A 46	A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	47.0	54.0	10.3	43.8	48.1	47.6	27.2	85.4	10.3	10.3
A 49	A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	37.9	41.0	10.3	31.3	31.1	23.8	10.5	72.7	10.3	10.3
A 51	A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	44.5	52.8	10.3	37.5	46.2	42.9	21.9	84.1	10.3	10.3
A 52	A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	45.5	52.8	10.3	37.5	39.6	38.1	17.5	88.6	10.3	10.3
A 55	A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	45.5	44.7	10.3	37.5	42.5	47.6	16.7	79.5	10.3	10.3
A 56	A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	36.4	42.2	10.3	37.5	41.3	23.8	16.7	81.9	10.3	10.3
C 113	C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?	87.3	80.1	10.3	81.3	51.9	71.4	44.7	95.5	10.3	10.3
C 114	C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?	75.8	73.9	10.3	62.8	55.7	71.4	44.7	95.5	10.3	10.3
C 120	C2-5 DO YOU TROUBLESHOOT TRANSFORMERS?	60.6	55.3	10.3	50.0	17.0	42.9	12.3	93.2	10.3	10.3

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MIN IMA ACC

D TSM	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
C 150	C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	62.1	46.0	10.3	68.8	20.8	38.1	11.4	95.5
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	27.3	44.7	10.3	31.3	20.8	23.8	17.5	56.8
E 284	E3-8 DO YOU PERFORM TASKS ON CONTACTS OF RELAYS?	68.2	51.6	10.3	81.3	81.1	81.0	76.3	93.2
E 294	E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?	50.0	47.2	10.3	68.8	66.0	57.1	31.6	88.6
H 478	H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?	81.8	57.8	10.3	75.0	18.9	47.6	12.3	93.2
A 54	A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	34.8	37.3	10.3	31.3	32.1	19.0	9.6	70.5
C 151	C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	54.5	52.2	13.8	62.5	18.9	33.3	8.8	95.5
C 152	C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	69.7	62.7	13.8	68.8	23.6	38.1	8.8	95.5
B 71	B2-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM WAVE LENGTH IN YOUR PRESENT JOB?	53.0	46.0	13.8	75.0	36.8	47.6	7.9	81.8
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	45.5	36.0	10.3	62.5	16.0	38.1	7.9	90.9
S1188	S1-1 DO YOU WORK WITH INPUT OR OUTPUT DEVICES ON YOUR PRESENT JOB? IF NO, GO TO ITEM S2-1; IF YES, CONTINUE.	80.3	76.4	51.7	43.8	23.6	14.3	7.9	47.7
A 28	A3-4 DO YOU ADJUST RESISTORS?	80.3	77.0	6.9	75.0	47.2	76.2	20.2	97.7
A 31	A3-7 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY CARBON?	27.3	37.3	6.9	56.3	46.2	42.9	21.9	72.7
A 32	A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED WIRE?	62.1	61.5	6.9	62.5	67.0	61.9	36.0	90.9
A 37	A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE?	78.8	74.5	6.9	75.0	59.4	76.2	23.7	97.7
A 48	A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?	42.4	47.2	6.9	31.3	35.0	33.3	19.3	88.6
A 53	A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	39.4	45.3	6.9	31.3	36.8	28.6	15.8	86.4
A 57	A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	37.9	42.9	6.9	37.5	38.7	23.8	13.2	88.6
A 58	A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	31.8	36.6	6.9	37.5	34.9	19.0	12.3	81.8
A 59	A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	25.8	30.4	6.9	31.3	30.2	14.3	7.9	70.5
B 75	B3-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C1-1; IF YES, CONTINUE.	37.9	36.6	6.9	37.5	21.7	14.3	12.3	68.2
C 118	C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?	36.4	38.5	6.9	43.8	31.1	28.6	17.5	72.7
C 127	C2-2 DO YOU INSPECT TRANSFORMERS?	69.7	67.7	6.9	68.8	26.4	66.7	21.9	95.5
C 139	C2-14 DO YOU WORK WITH AUDIO TRANSFORMERS?	18.2	14.3	6.9	12.5	15.1	47.6	10.5	65.9

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D TSK TITLES

D 233 D3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.

D 243 D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?

E 263 E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.

G 383 G2-1 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM G3-1; IF YES, CONTINUE.

G 393 G2-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?

H 469 H2-3 DO YOU CLEAN POWER SUPPLIES?

H 490 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS?

H 497 H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?

H 498 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM I1-1; IF YES, CONTINUE.

M 779 M3-2 DO YOU INSPECT MOTORS?

F 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.

A 10 A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS 2 : 5 :: 4 : 10. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS 2/5 = 4/10. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS 2 : X :: 4 : 10 (X IN THIS CASE IS UNKNOWN).

B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?

B 74 R2-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?

S1198 S1-11 DO YOU USE OR REFER TO TOGGLE OR PUSH BUTTON SWITCH INPUTS?

F 309 F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.

A 3 A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?

A 5 A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $x + 6 = 8$?

B 66 B1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE PRESSURE?

C 174 C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?

M 781 M3-4 DO YOU OPERATE MOTORS?

M 784 M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?

C 238 D3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?

S 94 B3-20 DO YOU WORK WITH POWER INDUCTORS?

306 (M)	306 (M)	316 (M)	316 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)	MIN
68.2	42.2	6.9	31.3	11.3	57.1	18.4	75.0	6.9		
31.8	22.4	6.9	25.0	7.5	9.5	14.0	29.5	6.9		
86.4	83.9	6.9	75.0	76.4	81.0	78.9	97.7	6.9		
84.8	80.1	6.9	75.0	30.2	71.4	19.3	95.5	6.9		
86.4	77.0	6.9	81.3	22.6	61.9	13.2	95.5	6.9		
86.4	75.8	6.9	81.3	43.4	76.2	72.8	77.3	6.9		
43.9	32.9	6.9	25.0	13.2	14.3	12.3	81.8	6.9		
68.2	56.5	6.9	31.3	13.2	38.1	9.6	88.6	6.9		
56.1	17.4	6.9	25.0	30.2	71.4	6.1	72.7	6.1		
72.7	79.5	44.8	25.0	18.9	9.5	6.1	90.9	6.1		
6.1	6.2	13.8	31.3	7.5	66.7	20.2	75.0	6.1		
15.2	9.9	10.3	37.5	9.4	23.8	5.3	61.4	5.3		
24.2	7.5	37.9	81.3	38.7	28.6	5.3	86.4	5.3		
54.5	37.3	27.6	50.0	21.7	23.8	5.3	88.6	5.3		
69.7	44.1	37.9	31.3	9.4	9.5	5.3	38.6	5.3		
27.3	5.0	6.9	18.8	11.3	81.0	57.9	72.7	5.0		
27.3	13.7	13.8	68.8	17.0	4.8	8.8	77.3	4.8		
15.2	11.2	10.3	43.8	17.9	4.8	10.5	68.2	4.8		
36.4	8.7	44.8	56.3	25.5	4.8	6.1	72.7	4.8		
21.2	18.6	6.9	12.5	17.9	4.8	5.1	47.7	4.8		
66.7	72.0	44.8	25.0	16.9	4.8	5.3	90.9	4.8		
65.2	73.9	24.1	18.8	15.1	4.8	7.9	90.9	4.8		
57.6	31.7	6.9	25.0	4.7	14.3	7.0	77.3	4.7		
25.8	26.1	6.9	31.3	13.2	4.8	4.4	63.6	4.4		

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D TSK TITLES

C 153	C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	306 51 (M)	306 52 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN
C 153	C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	27.3	16.1	6.9	25.0	13.2	14.3	4.4	59.1	4.4
K 672	K3-13 DO YOU ADD BINARY NUMBERS?	43.9	17.4	10.3	50.0	6.6	9.5	4.4	61.4	4.4
F 312	F2-4 DO YOU OPERATE SPEAKERS?	21.2	3.7	6.9	12.5	9.4	76.2	51.8	59.1	3.7
A 11	A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?	31.8	13.0	6.9	37.5	12.3	9.5	3.5	54.5	3.5
H 475	H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?	6.1	4.3	6.9	12.5	9.4	19.0	3.5	40.9	3.5
M 780	M3-3 DO YOU CLEAN OR LUBRICATE MOTORS?	74.2	76.4	13.8	25.0	16.9	9.5	3.5	90.9	3.5
A 26	A3-2 DO YOU INSPECT RESISTORS?	83.3	82.6	3.4	81.3	60.4	85.7	36.0	90.9	3.4
A 27	A3-3 DO YOU CLEAN RESISTORS?	63.6	62.7	3.4	68.8	41.5	66.7	15.8	72.7	3.4
A 38	A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?	68.2	64.0	3.4	62.5	48.1	71.4	12.3	93.2	3.4
A 39	A3-15 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?	30.3	30.4	3.4	50.0	25.5	33.3	6.1	47.7	3.4
C 101	C1-5 DO YOU TEST CAPACITORS?	75.8	75.8	3.4	68.8	54.7	52.4	28.9	93.2	3.4
C 106	C1-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS?	69.7	68.9	3.4	62.5	47.2	57.1	19.3	93.2	3.4
C 107	C1-11 DO YOU USE OR REFER TO CAPACITANCE?	65.2	72.7	3.4	62.5	62.3	57.1	28.1	88.6	3.4
C 124	C1-28 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?	84.8	75.8	3.4	68.8	50.9	71.4	31.6	90.9	3.4
C 125	C1-29 DO YOU WORK WITH OTHER FIXED CAPACITORS?	72.7	68.9	3.4	81.3	47.2	57.1	33.3	95.5	3.4
C 144	C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	56.1	60.2	3.4	62.5	25.5	47.6	11.4	93.2	3.4
C 145	C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	53.0	55.9	3.4	56.3	23.6	47.6	13.2	84.1	3.4
C 146	C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	59.1	50.3	3.4	43.8	18.9	38.1	12.3	81.8	3.4
C 154	C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	37.9	24.2	3.4	25.0	17.9	23.8	8.8	70.5	3.4
C 155	C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?	19.7	27.3	3.4	56.3	17.0	23.8	5.3	86.4	3.4
C 157	C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?	34.8	23.6	3.4	25.0	11.3	19.0	4.4	81.8	3.4
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	34.8	39.1	3.4	37.5	29.2	28.6	14.0	45.5	3.4
C 173	C3-6 DO YOU USE OR REFER TO RESIDUAL MAGNETISM?	13.6	20.5	3.4	12.5	57.5	14.3	6.1	29.5	3.4
C 177	C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION?	22.7	21.7	3.4	6.3	18.9	9.5	10.5	45.5	3.4
C 180	D1-1 DO YOU WORK WITH PC, LR, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.	31.8	25.5	3.4	12.5	9.4	14.3	4.4	77.3	3.4
E 270	E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?	87.9	80.7	3.4	81.3	38.7	57.1	21.1	95.5	3.4
E 282	E3-6 DO YOU MONITOR BIAS OUTPUT ON RELAYS?	22.7	15.5	3.4	12.5	29.2	23.8	12.3	29.5	3.4
E 285	E3-9 DO YOU PERFORM TASKS ON COILS OF RELAYS?	21.2	18.6	3.4	31.3	52.8	33.3	8.8	40.9	3.4
E 286	E3-10 DO YOU PERFORM TASKS ON COILS OF RELAYS?	31.8	28.6	3.4	43.8	56.6	38.1	11.4	61.4	3.4
E 287	E3-11 DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?	54.5	46.0	3.4	68.8	78.3	52.4	36.8	72.7	3.4
E 288	E3-12 DO YOU PERFORM TASKS ON SPINGS OF RELAYS?	57.6	45.3	3.4	68.8	82.1	61.9	54.4	77.3	3.4
G 342	G1-1 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.	81.8	70.2	3.4	75.0	47.2	66.7	11.4	93.2	3.4
G 348	G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?	53.0	39.8	3.4	43.8	24.5	23.8	3.5	72.7	3.4

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G 356	61-15	DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?	81.8	65.2	3.4	50.0	41.5	52.4	9.6	93.2	3.4
G 384	62-2	DO YOU INSPECT TRANSISTORS?	83.3	76.4	3.4	75.0	26.4	71.4	14.0	93.2	3.4
G 385	62-3	DO YOU CHECK TRANSISTORS?	83.3	78.9	3.4	62.5	24.5	71.4	16.7	93.2	3.4
G 366	62-4	DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS?	75.8	65.2	3.4	43.8	23.6	47.6	7.0	90.9	3.4
G 387	62-5	DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND RESISTANCE MEASUREMENTS?	74.2	66.5	3.4	62.5	19.8	47.6	7.9	86.4	3.4
G 388	62-6	DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS?	74.2	67.1	3.4	62.5	20.8	47.6	7.9	86.4	3.4
G 369	62-7	DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?	51.5	32.3	3.4	31.3	11.3	28.6	3.5	70.5	3.4
G 390	62-8	DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?	48.5	32.3	3.4	31.3	11.3	23.8	3.5	65.9	3.4
G 391	62-9	DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?	54.5	39.1	3.4	43.8	13.2	47.6	4.4	81.8	3.4
G 394	62-12	DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, A2, A3, ETC.?	84.8	77.0	3.4	75.0	20.8	61.9	11.4	93.2	3.4
M 474	M2-8	DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?	86.4	68.3	3.4	75.0	25.5	76.2	30.7	93.2	3.4
M 476	M2-10	DO YOU WORK WITH HALF-WAVE RECTIFIERS?	72.7	50.9	3.4	56.3	20.8	19.0	7.0	93.2	3.4
M 477	M2-11	DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?	71.2	57.1	3.4	62.5	26.4	33.3	4.4	88.6	3.4
N 810	N1-2	DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?	7.6	32.9	3.4	43.8	13.2	14.3	5.3	47.2	3.4
N 811	N1-3	DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?	13.6	31.7	3.4	18.4	17.9	9.5	4.4	45.5	3.4
F 298	F1-4	DO YOU OPERATE MICROPHONES?	3.0	4.3	13.8	12.5	7.5	57.1	15.8	63.6	3.0
A 36	A3-12	DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?	16.7	9.3	3.4	31.3	13.2	19.0	2.6	59.1	2.6
G 186	D1-7	DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?	16.7	16.1	3.4	18.8	6.6	4.8	2.6	54.5	2.6
M 462	M1-10	DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS?	74.8	22.4	6.9	68.8	4.7	14.3	2.6	95.5	2.6
M 479	M2-13	DO YOU WORK WITH THREE-PHASE RECTIFIERS?	30.3	18.0	3.4	50.0	18.9	9.5	2.6	68.2	2.6
M 499	M3-2	DO YOU INSPECT OSCILLATORS?	45.5	16.8	3.4	6.3	17.9	66.7	2.6	75.0	2.6
J 597	J2-2	DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?	10.6	26.1	6.9	18.8	6.6	4.8	2.6	79.5	2.6
M 561	M3-2	DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?	48.5	13.7	13.8	62.5	6.6	9.5	2.6	61.4	2.6
S1195	S1-8	DO YOU USE OR REFER TO LEDs?	60.6	44.1	31.0	31.3	12.3	4.8	2.6	50.0	2.6
M 666	M3-7	DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?	57.0	13.7	6.9	56.3	7.5	4.8	1.8	59.1	1.8
M 681	M3-22	DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	27.3	8.1	6.9	47.8	4.7	4.8	1.8	40.9	1.8
L 665	L1-1	IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.	86.4	34.8	17.9	43.8	2.8	14.3	1.8	77.3	1.8
L 695	L1-11	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?	83.3	35.4	17.9	37.5	1.9	14.3	1.8	77.3	1.8
S1169	S1-2	DO YOU USE OR REFER TO KEYBOARDS OR TELETYPEWRITERS?	68.2	78.9	6.9	43.8	19.8	4.8	1.2	31.8	1.8
S1192	S1-3	DO YOU USE OR REFER TO PRINTERS?	77.3	78.3	13.8	37.5	17.9	4.8	1.8	45.5	1.8
S1199	S1-12	DO YOU USE OR REFER TO INTERFACE ADAPTER UNITS?	39.4	30.4	10.3	37.5	6.6	4.9	1.8	29.5	1.8

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D TSK TITLES

A 19 A2-8 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM COULOMB?
F 306 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?
G 403 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO
THE BASE COLLECTOR VOLTAGE (AV = VCB/VBE)?
G 404 G2-22 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO
THE CHANGE IN COLLECTOR CURRENT (AI = IC/IB)?
G 405 G2-23 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC
TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE
VOLTAGE GAIN (AP = AI X AV)?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR
REGENERATIVE)?
H 515 H3-18 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T
KNOW WHICH TYPE OF FDO?
H 524 H3-27 DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF
SINUSOIDAL OSCILLATOR?
I 540 I2-1 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT
JOB? IF NO, GO TO ITEM I3-1; IF YES, CONTINUE.
K 663 K3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?
L 694 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?
L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR
'MOR' GATES?
L 704 L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC
DIAGRAMS?
L 737 L3-8 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?
N 812 N1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS
INTERNAL METER PARTS?
S1197 S1-10 DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?
A 4 A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?
A 6 A1-6 DO YOU USE LOGARITHM TABLES?
A 7 A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR
X IN THE EQUATION $X^2 + 4X + 4 = 0$?
A 8 A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
A 9 A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE,
COSINE, OR TANGENT?
A 15 A2-4 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM ION?
A 16 A2-5 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM DYNE?
A 19 A2-7 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM NEUTRON?
A 20 A2-9 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM PROTON?
A 30 A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR
RESISTORS ON ANY TASK YOU PERFORM?

306	306	316	316	362	362	918	
51	52	SOF	52F	51	53	50	
(M)	(M)	(M)	(M)	(M)	(M)	(M)	
6.1	8.1	6.9	6.3	5.7	9.5	54.5	.9
1.5	1.9	3.4	6.3	2.8	28.6	36.4	.9
3.0	6.2	3.4	6.3	1.9	4.8	22.7	.9
3.0	5.0	3.4	6.3	2.8	4.8	18.2	.9
4.5	5.6	3.4	6.3	1.9	4.8	22.7	.9
27.3	8.1	3.4	6.3	6.6	14.3	68.2	.9
12.1	5.0	3.4	6.3	11.3	33.3	22.7	.9
16.7	8.7	3.4	6.3	14.2	28.6	29.5	.9
21.2	16.1	3.4	6.3	1.9	4.8	72.7	.9
33.3	6.2	51.7	50.0	2.8	4.8	40.9	.9
83.3	35.4	37.9	43.8	1.9	14.3	77.3	.9
83.3	35.4	34.5	37.5	1.9	14.3	77.3	.9
81.8	31.7	13.8	18.8	1.9	19.0	72.7	.9
42.4	13.7	3.4	12.5	.9	9.5	45.5	.9
10.6	17.4	3.4	18.8	14.2	14.3	43.2	.9
27.7	11.8	13.8	18.8	3.8	4.8	29.5	.9
7.6	6.2	.0	12.5	7.5	.0	36.4	.0
3.0	3.1	.0	.0	3.8	4.8	15.9	.0
3.0	2.5	.0	.0	4.7	.0	27.3	.0
3.0	4.3	.0	6.3	1.9	4.8	18.2	.0
7.6	4.3	.0	6.3	2.8	4.8	15.9	.0
6.1	7.5	10.3	81.3	7.5	.0	72.7	.0
1.5	5.0	6.9	.0	2.8	.0	29.5	.0
18.2	14.9	6.9	18.8	13.2	.0	54.5	.0
19.7	16.1	3.4	18.8	16.0	.0	56.8	.0
19.7	17.4	.0	25.0	15.1	4.8	52.3	.0

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D TSK	TITLES	FCPT04 PAGE 194				MIN			
		306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
A 33	A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	16.7	29.2	.0	56.3	23.6	33.3	7.9	90.9
B 67	A1-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE LIGHT LEVELS?	33.3	1.9	6.9	.0	1.9	.0	6.1	47.7
B 73	B2-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?	12.1	13.7	3.4	18.8	10.4	.0	.9	52.3
B 76	B3-2 DO YOU INSPECT INDUCTORS?	40.9	38.5	.0	56.3	18.9	14.3	7.9	75.0
B 77	B3-3 DO YOU CLEAN INDUCTORS?	31.8	28.6	.0	56.3	14.2	9.5	6.1	59.1
B 78	B3-4 DO YOU ADJUST INDUCTORS?	11.2	19.3	3.4	43.8	13.2	.0	1.8	56.8
B 79	B3-5 DO YOU MEASURE INDUCTORS?	25.8	28.0	.0	43.8	17.0	9.5	3.5	61.4
B 80	B3-6 DO YOU USE OR REFER TO INDUCTANCE?	31.8	31.7	.0	50.0	21.7	14.3	6.1	81.8
B 81	B3-7 DO YOU USE OR REFER TO HENRIES?	21.2	20.5	.0	18.8	13.2	4.8	1.8	68.2
B 82	B3-8 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?	13.6	18.6	.0	18.8	17.0	9.5	1.8	63.6
B 83	B3-9 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?	6.1	3.7	.0	.0	7.5	.0	.9	36.4
B 84	B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?	6.1	5.0	.0	.0	3.8	.0	.9	34.1
B 85	B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS?	4.5	6.2	.0	.0	9.4	.0	.9	38.6
B 86	B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL?	10.6	9.9	.0	.0	12.3	4.8	2.6	36.4
A 67	B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE?	6.1	7.5	.0	.0	10.4	4.8	1.8	31.8
B 88	B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?	4.5	6.8	.0	6.3	9.4	4.8	1.8	29.5
B 89	B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL?	7.6	8.1	.0	6.3	11.3	4.8	2.6	36.4
B 90	B3-16 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	4.5	9.3	.0	37.5	10.4	.0	4.4	36.4
B 91	B3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?	12.1	18.0	.0	12.5	14.2	14.3	4.4	61.4
B 92	B3-18 DO YOU CALCULATE INDUCTIVE REACTANCE?	7.6	9.3	.0	6.3	10.4	.0	3.5	40.9
B 93	B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?	6.1	9.3	.0	6.3	16.0	9.5	2.6	43.2
B 94	B3-20 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?	16.7	11.2	3.4	.0	16.0	9.5	6.1	52.3
B 96	B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?	13.6	9.3	3.4	.0	7.5	.0	.9	50.0
C 95	C1-2 DO YOU INSPECT CAPACITORS?	83.3	82.0	.0	81.3	56.6	76.2	27.3	93.2
C 99	C1-3 DO YOU CLEAN CAPACITORS?	57.6	64.6	.0	68.8	45.3	47.6	15.8	61.4
C 100	C1-4 DO YOU ADJUST CAPACITORS?	27.3	25.5	.0	47.8	21.7	14.3	3.5	70.5
C 102	C1-6 DO YOU DISCHARGE CAPACITORS?	83.3	71.4	.0	62.5	43.4	66.7	28.1	86.4
C 103	C1-7 DO YOU MEASURE CAPACITORS?	57.0	60.2	.0	62.5	41.5	58.1	20.2	79.5
C 104	C1-8 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?	9.1	14.9	.0	18.3	11.3	9.5	2.5	22.7
C 105	C1-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIODE?	4.5	3.1	.0	6.3	4.7	4.3	.0	11.4
C 108	C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?	7.6	9.3	.0	.0	10.3	.0	.0	31.8

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D TSK	TITLES	306 (M)	306 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MM IMA AC
C 109	C1-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS?	54.5	49.1	.0	62.5	35.8	47.6	11.4	81.8	.0
C 110	C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?	28.8	39.8	.0	37.5	29.2	14.3	6.1	65.9	.0
C 111	C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?	19.7	20.5	.0	37.5	14.2	9.5	5.3	43.2	.0
C 115	C1-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	21.2	16.8	.0	6.3	22.6	14.3	9.6	40.9	.0
C 116	C1-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT?	10.6	7.5	.0	.0	16.0	4.8	3.5	25.0	.0
C 117	C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?	9.1	6.8	.0	6.3	15.1	.0	3.5	27.3	.0
C 119	C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?	18.2	24.2	.0	18.8	23.6	23.8	10.5	61.4	.0
C 120	C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?	12.1	13.7	.0	.0	18.9	9.5	7.0	43.2	.0
C 121	C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?	12.1	8.1	.0	6.3	14.2	.0	3.5	40.9	.0
C 122	C1-26 DO YOU WORK WITH VARIABLE CAPACITORS?	27.3	25.5	.0	31.3	17.9	14.3	13.2	77.3	.0
C 123	C1-27 DO YOU WORK WITH TRIMMER CAPACITORS?	12.1	14.3	.0	18.8	8.5	.0	2.6	68.2	.0
C 128	C2-3 DO YOU CLEAN TRANSFORMERS?	51.5	59.0	.0	68.8	20.8	47.6	14.9	72.7	.0
C 129	C2-4 DO YOU ADJUST TRANSFORMERS?	19.7	24.8	.0	43.8	12.3	9.5	3.5	65.9	.0
C 131	C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)?	3.0	3.1	.0	.0	4.7	.0	.0	18.2	.0
C 132	C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?	4.5	3.1	.0	6.3	3.8	.0	1.8	15.9	.0
C 133	C2-8 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS?	6.1	6.2	.0	6.3	4.7	4.8	.0	29.5	.0
C 134	C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS?	13.6	11.2	.0	18.8	4.7	14.3	2.6	59.1	.0
C 135	C2-10 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS?	13.6	9.3	.0	.0	3.8	4.8	1.8	22.7	.0
C 136	C2-11 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS?	6.1	2.5	.0	6.3	5.7	.0	.0	13.6	.0
C 137	C2-12 DO YOU WORK WITH AUTOTRANSFORMERS?	7.6	6.8	.0	14.8	4.7	9.5	.9	88.6	.0
C 140	C2-15 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?	12.1	7.5	.0	6.3	2.8	.0	.9	52.3	.0
C 141	C2-16 DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?	3.0	4.3	.0	25.0	2.8	.0	.0	36.4	.0
C 142	C2-17 DO YOU WORK WITH SENSING TRANSFORMERS?	6.1	3.1	.0	18.8	4.7	.0	.9	31.8	.0
C 147	C2-18 DO YOU WORK WITH CONTROL TRANSFORMERS?	13.6	9.3	.0	25.0	8.5	.0	2.6	59.1	.0
C 147	C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	19.7	26.1	.0	6.3	9.4	19.0	2.6	50.0	.0
C 148	C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	27.3	35.4	.0	12.5	13.2	33.3	4.4	86.4	.0
C 154	C2-33 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMER YOU WORK WITH?	22.7	8.1	.0	12.5	6.6	4.8	2.6	36.4	.0

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D TSK	TITLES	306 (M)	306 (M)	316 52 (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA ACC
C 159	C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	16.7	12.4	.0	18.6	4.7	14.3	.9	65.9	.0
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	28.8	36.0	.0	31.3	9.4	23.8	6.1	86.4	.0
C 161	C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	15.2	7.5	.0	6.3	2.8	14.3	.0	52.3	.0
C 162	C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	10.6	6.2	.0	6.3	2.8	4.8	.0	34.1	.0
C 163	C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?	16.7	6.2	13.8	43.8	5.7	.0	.0	81.8	.0
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	13.6	5.6	6.9	31.3	7.5	.0	1.8	77.3	.0
C 165	C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?	6.1	3.7	.0	6.3	5.7	.0	.9	56.8	.0
C 166	C2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?	.0	3.1	.0	6.3	5.7	.0	.9	56.8	.0
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	7.6	3.7	.0	31.3	5.7	.0	.9	72.7	.0
C 170	C3-3 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS?	10.6	8.7	3.4	6.3	19.8	.0	2.6	20.5	.0
C 171	C3-4 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	16.7	11.2	3.4	6.3	13.2	.0	2.6	22.7	.0
C 172	C3-5 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	12.1	10.6	3.4	6.3	14.2	.0	3.5	25.0	.0
C 175	C3-8 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?	6.1	3.7	.0	.0	3.8	.0	3.5	15.9	.0
C 176	C3-9 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?	3.0	3.7	.0	6.3	4.7	.0	2.6	15.9	.0
C 178	C3-11 DO YOU USE OR REFER TO FLUX DENSITY?	10.6	5.6	.0	6.3	6.6	.0	1.8	15.9	.0
C 179	C3-12 DO YOU USE OR REFER TO SATURABLE REACTANCE?	4.5	3.7	.0	6.3	9.4	.0	1.8	18.2	.0
D 181	D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH PCL CIRCUITS?	4.5	3.1	.0	.0	2.8	4.8	.0	29.5	.0
D 18	D1-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH PCL CIRCUITS?	6.1	3.7	.0	.0	4.7	4.8	.0	22.7	.0
D 183	D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?	7.6	1.9	.0	6.3	4.7	.0	.0	25.0	.0
D 184	D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?	6.1	1.9	.0	6.3	4.7	.0	.0	22.7	.0
D 185	D1-6 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH PCL CIRCUITS?	3.0	1.9	.0	.0	4.7	.0	.0	27.3	.0
D 187	D1-8 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH PCL CIRCUITS?	6.1	6.2	.0	.0	4.7	.0	.9	29.5	.0
D 188	D1-9 DO YOU USE OR REFER TO MAXIMUM POWER (P SUB M) WHEN WORKING WITH PCL CIRCUITS?	4.5	5.6	.0	.0	5.7	.0	.0	27.3	.0
D 189	D1-10 DO YOU USE OR REFER TO AVERAGE POWER (P SUB AVE) WHEN WORKING WITH PCL CIRCUITS?	6.1	6.2	.0	.0	4.7	.0	.1	31.8	.0
D 190	D1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH PCL CIRCUITS?	3.0	5.0	.0	.0	4.7	.0	.0	25.5	.0
D 191	D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH PCL CIRCUITS?	4.5	6.2	.0	.0	4.7	.0	.0	25.0	.0
D 192	D1-17 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH PCL CIRCUITS?	12.1	8.1	.0	6.3	5.7	4.8	1.8	84.5	.0

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O TSK TITLES

306	306	316	316	362	362	918	MIN
51	52	50F	52F	51	53	54	IMA
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
7.6	5.6	.0	12.5	1.9	4.8	.0	40.9
6.1	4.3	.0	6.3	3.8	9.5	.0	29.5
10.6	6.2	.0	12.5	3.8	4.8	.0	52.3
4.5	4.3	.0	6.3	1.9	.0	.0	29.5
3.0	4.3	.0	.0	1.9	.0	.0	38.6
6.1	1.9	.0	.0	.9	.0	.0	22.7
16.7	11.8	.0	6.3	1.9	.0	.0	63.6
1.5	1.9	.0	.0	2.8	.0	.0	13.6
4.5	4.3	.0	6.3	3.8	4.8	.9	25.0
10.6	10.6	.0	.0	6.6	4.8	.9	29.5
6.1	3.7	.0	.0	4.7	.0	.0	25.0
9.1	8.1	.0	.0	7.5	4.8	.9	38.6
4.5	3.7	.0	.0	4.7	4.8	.0	20.5
3.0	3.1	.0	.0	2.8	.0	.0	15.9
4.5	5.6	.0	.0	2.8	.0	.0	25.0
3.0	5.0	.0	.0	2.8	.0	.0	22.7
16.7	10.6	.0	6.3	4.7	4.8	.9	43.2
4.5	2.5	.0	.0	3.8	.0	.0	18.2
6.1	4.3	.0	.0	2.8	.0	.0	20.5
18.2	10.6	.0	12.5	7.5	4.8	1.8	45.5
34.8	27.3	.0	18.8	10.4	28.5	7.9	72.7
21.2	15.5	.0	12.5	3.8	19.0	2.6	61.4
24.2	23.6	.0	18.8	8.5	19.0	4.4	65.9
17.6	13.0	.0	6.3	3.8	14.3	7.5	50.0
37.9	27.3	.0	25.0	12.3	29.5	7.9	77.3
18.2	13.7	.0	6.3	3.8	19.0	3.5	52.3

D 193 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?

D 194 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS?

D 195 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?

D 196 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?

D 197 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?

D 198 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?

D 199 D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?

D 200 D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS USING FORMULAS SUCH AS: SINE OF AND ANGLE = OPPOSITE SIDE/HYPOTENUSE?

D 201 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?

D 202 D1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?

D 203 D1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?

D 204 D1-25 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?

D 205 D1-26 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS?

D 206 D1-27 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR SERIES RCL CIRCUITS?

D 207 D1-28 DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR SERIES RCL CIRCUITS?

D 208 D1-29 DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES RCL CIRCUITS?

D 209 D1-30 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL CIRCUITS?

D 210 D1-31 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS?

D 211 D1-32 DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?

D 212 D1-33 DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?

D 213 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS?

D 214 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION?

D 215 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS?

D 216 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?

D 217 D1-38 DO YOU CHECK RESISTORS USING OHMMETERS?

D 218 D1-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?

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D TSK	TITLES	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	MIN	IWA	*C*												
D 245 D3-13	DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?	18.2	8.1	.0	12.5	.9	.0	1.8	36.4	.0														
D 246 D3-14	DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?	18.2	8.7	.0	6.3	1.9	.0	1.8	34.1	.0														
D 247 D3-15	DO YOU WORK WITH YTTRIUM IRON GARNET (YIG) FILTERS?	.0	.0	.0	6.3	.9	.0	.0	9.1	.0														
D 248 D3-16	DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS?	9.1	1.9	.0	6.3	1.9	.0	.9	18.2	.0														
E 249 E1-1	DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.	45.5	24.2	.0	18.8	7.5	14.3	7.9	79.5	.0														
E 250 E1-2	DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING?	47.0	19.9	.0	25.0	4.7	9.5	.9	77.3	.0														
E 251 E1-3	DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING (MATCHING)?	37.9	14.9	.0	6.3	4.7	14.3	5.3	68.2	.0														
E 252 E1-4	DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH OPTICAL COUPLING?	4.5	7.5	.0	6.3	2.8	.0	.0	45.5	.0														
E 253 E1-5	DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING?	24.2	19.3	.0	18.8	5.7	14.3	4.4	68.2	.0														
E 254 E1-6	DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING?	47.0	19.9	.0	18.8	5.7	9.5	.9	81.8	.0														
E 255 E1-7	DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING?	36.4	13.7	.0	6.3	6.6	14.3	6.1	72.7	.0														
E 256 E1-8	DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING?	27.3	17.4	.0	18.8	7.5	14.3	4.4	70.5	.0														
E 257 E1-9	DO YOU WORK WITH DIRECT COUPLED CIRCUITS?	37.9	22.4	.0	18.8	5.7	14.3	3.5	81.8	.0														
E 258 E1-10	DO YOU WORK WITH CAPACITIVE-PESISTIVE COUPLED CIRCUITS?	43.9	18.6	.0	18.8	5.7	9.5	2.6	79.5	.0														
E 259 E1-11	DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	19.7	16.8	.0	6.3	5.7	4.8	2.6	70.5	.0														
E 260 E1-12	DO YOU WORK WITH OPTICAL COUPLING?	4.5	6.2	.0	.0	2.8	.0	.0	43.2	.0														
E 261 E1-12	DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?	4.5	6.2	.0	.0	2.8	.0	.0	40.9	.0														
E 262 E1-14	DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?	22.7	16.1	.0	18.8	6.6	14.3	4.4	70.5	.0														
E 263 E2-2	DO YOU SOLDER CONNECTIONS?	87.9	88.2	.0	81.3	84.0	81.0	96.0	97.7	.0														
E 264 E2-3	DO YOU DESOLDER CONNECTIONS?	87.9	88.2	.0	81.3	85.8	81.0	83.3	97.7	.0														
E 265 E2-4	DO YOU PERFORM HIGH RELIABILITY SOLDERING?	72.7	61.5	.0	75.0	58.5	71.4	46.5	86.4	.0														
E 266 E2-5	DO YOU INSPECT SOLDERED CONNECTIONS?	87.9	87.6	.0	81.3	85.8	81.0	79.8	95.5	.0														
E 267 E2-6	DO YOU CLEAN OR TIN CONNECTIONS?	86.4	85.7	.0	81.3	83.0	81.0	78.9	95.5	.0														
E 268 E2-7	DO YOU MAKE HANDING CONNECTIONS?	87.3	81.4	.0	81.3	79.2	71.4	80.7	90.9	.0														
E 269 E2-9	DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?	87.9	85.7	.0	81.3	69.8	81.0	32.5	97.7	.0														
E 270 E2-10	DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?	87.9	79.5	.0	75.0	48.1	71.4	22.8	95.5	.0														
E 271 E2-11	DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTFGRATED CIRCUITS?	81.8	47.8	.0	43.9	21.7	38.1	10.5	93.2	.0														
E 272 E2-12	DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?	68.2	31.1	.0	31.3	78.3	57.1	77.2	36.4	.0														
E 273 E2-13	DO YOU PERFORM CRIMPING IN LIEU OF SOLDERING?	69.7	55.3	.0	81.3	46.2	38.1	50.9	84.1	.0														

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D TSK	TITLS	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA *C*
G 362	G1-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?	3.0	9.9	.0	12.5	5.7	4.8	.9	27.3	.0
G 363	G1-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?	6.1	11.2	.0	12.5	6.6	4.8	.9	45.5	.0
G 364	G1-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?	4.5	10.6	.0	12.5	6.6	4.8	.9	27.3	.0
G 365	G1-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?	6.1	10.6	.0	18.8	6.6	4.8	.9	45.5	.0
G 366	G1-25 DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	21.2	18.0	.0	18.8	9.4	9.5	1.8	56.8	.0
G 367	G1-26 DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?	7.6	10.6	.0	12.5	5.7	4.8	.9	31.8	.0
G 368	G1-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	4.5	9.9	.0	18.8	5.7	4.8	.9	31.8	.0
G 369	G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	45.5	24.8	.0	31.3	11.3	23.8	3.5	72.7	.0
G 370	G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	47.0	24.8	.0	25.0	11.3	23.8	3.5	72.7	.0
G 371	G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	16.7	14.3	.0	12.5	5.7	4.8	.9	43.2	.0
G 372	G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	16.7	14.9	.0	12.5	5.7	4.8	.9	43.2	.0
G 373	G1-32 DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?	7.6	11.2	.0	18.8	6.6	4.8	.9	38.6	.0
G 374	G1-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	6.1	12.4	.0	12.5	7.5	4.8	.9	50.0	.0
G 375	G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?	9.1	13.7	.0	12.5	7.5	4.8	.9	47.7	.0
G 376	G1-35 DO YOU USE OR REFER TO THE 10:1 RACK TO FRONT RESISTANCE RATIO FOR DIODES?	28.8	17.4	.0	18.8	4.7	4.8	1.8	45.5	.0
G 377	G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS?	7.6	6.2	.0	.0	5.7	4.8	.9	20.5	.0
G 378	G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION?	31.8	20.5	.0	25.0	6.6	26.6	.9	81.9	.0
G 379	G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS?	15.2	14.3	.0	12.5	4.7	.0	.0	70.5	.0
G 380	G1-39 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS?	9.1	12.4	.0	6.3	4.7	.0	.0	52.3	.0
G 381	G1-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS?	16.7	11.8	3.4	12.5	4.7	.0	.0	54.5	.0
G 382	G1-41 DO YOU USE OR REFER TO PEAK PERVERSE (INVERSE) VOLTAGE DIODE RATINGS?	19.7	15.5	.0	18.8	4.7	4.8	.0	72.7	.0
G 392	G2-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUB CEO) IN A TRANSISTOR?	19.7	28.6	.0	18.8	5.7	14.3	2.6	52.3	.0
G 395	G2-12 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION?	59.1	44.7	.0	18.8	11.3	38.1	3.5	95.5	.0

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D TSK	TITLES	206 (P)	306 (M)	316 50F (M)	316 52F (M)	362 (M)	362 (M)	362 (M)	51 (M)	54 (M)	919 50 (M)	MIN IMA KCA
5 366	G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB E) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 5 PERCENT OF I(SUB E)?	36.4	34.2	.0	1P.9	5.7	19.0	.9	68.2		.0	
G 307	G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?	50.0	50.3	.0	31.3	8.5	19.0	5.3	84.1		.0	
G 398	G2-16 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?	15.2	20.5	.0	12.5	5.7	14.3	1.8	52.3		.0	
G 399	G2-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?	6.1	10.6	.0	18.8	.9	9.5	.9	43.2		.0	
G 400	G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?	3.0	13.0	.0	6.3	.9	.0	1.8	20.5		.0	
G 401	G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?	.0	12.4	.0	6.3	.9	.0	1.8	15.9		.0	
G 402	G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?	.0	11.8	.0	6.3	.9	.0	1.8	13.6		.0	
G 403	G2-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF CURVE TRACING?	.0	1.9	.0	12.5	.9	.0	.0	22.7		.0	
5 407	G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	48.5	24.8	.0	31.3	16.0	38.1	8.8	84.1		.0	
G 408	G3-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?	30.4	22.4	.0	31.3	11.3	47.6	6.1	84.1		.0	
G 409	G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?	24.2	13.7	.0	25.0	12.3	42.9	7.0	65.9		.0	
G 410	G3-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	45.5	19.9	.0	31.3	9.4	38.1	7.9	84.1		.0	
G 411	G3-5 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS?	43.9	21.1	.0	18.8	5.7	28.6	2.6	81.8		.0	
G 412	G3-6 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	36.4	18.0	.0	31.3	12.3	47.6	5.3	79.5		.0	
G 413	G3-7 DO YOU REMOVE OR REPLACE AMPLIFIER CIRCUIT COMPONENTS?	39.4	20.5	.0	18.8	3.8	23.8	1.8	81.8		.0	
5 414	G3-8 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR CURRENT RESULTS FROM A CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	15.2	14.3	.0	17.5	1.9	9.5	.9	52.3		.0	
G 415	G3-9 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO SPECIFIC CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	4.5	6.2	.0	6.3	1.9	9.5	.9	31.8		.0	
G 416	G3-10 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR VOLTAGE RESULTS FROM A CHANGE IN BASE CURRENT?	18.2	13.7	.0	12.5	1.9	9.5	.9	61.4		.0	
G 417	G3-11 DO YOU USE OR REFER TO THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	24.2	14.3	.0	18.8	1.9	14.3	.9	59.1		.0	
G 418	G3-12 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	10.6	8.1	.0	6.3	1.9	9.5	.9	36.4		.0	
G 419	G3-13 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)?	4.5	2.5	.0	6.3	.9	.0	1.8	18.2		.0	
G 420	G3-14 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR?	12.1	6.2	.0	6.3	1.9	4.8	1.8	31.8		.0	
G 421	G3-15 DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR AMPLIFIERS?	27.3	14.9	.0	25.0	3.8	19.0	2.6	65.9		.0	

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D TSK	TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN
G 422	G3-16 DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR AMPLIFIERS?	19.7	14.9	.0	25.2	4.7	14.3	1.8	50.0	.0
G 423	G3-17 DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR AMPLIFIERS?	16.7	10.6	.0	18.9	4.7	4.8	1.8	38.6	.0
G 424	G3-18 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?	10.6	5.0	.0	12.5	3.8	.0	.0	25.0	.0
G 425	G3-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION?	18.2	10.6	.0	18.8	1.9	9.5	.0	45.5	.0
G 426	G3-20 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION?	13.6	6.8	.0	18.8	1.9	9.5	.0	40.9	.0
G 427	G3-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION?	16.7	9.9	.0	12.5	1.9	4.8	.0	38.6	.0
G 428	G3-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?	24.2	11.8	.0	18.8	1.9	9.5	.9	43.2	.0
G 429	G3-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?	24.2	12.4	.0	18.8	1.9	4.8	.9	38.6	.0
G 430	G3-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?	6.1	7.5	.0	12.5	1.9	4.8	.0	38.5	.0
G 431	G3-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?	13.6	11.2	.0	12.5	1.9	28.6	.0	56.8	.0
G 432	G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?	12.1	11.2	.0	6.3	2.8	23.8	.0	50.0	.0
G 433	G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?	9.1	6.2	.0	12.5	2.8	9.5	.0	47.7	.0
G 434	G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?	4.5	7.5	.0	6.3	.9	.0	.0	43.2	.0
G 435	G3-29 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	18.2	6.2	.0	6.3	3.8	14.3	.9	34.1	.0
G 436	G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	1.5	3.7	.0	6.3	1.9	.0	.9	40.9	.0
G 437	G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	10.7	10.6	.0	18.8	3.8	19.0	.0	72.7	.0
G 438	G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?	3.0	4.3	.0	6.3	1.9	4.8	.0	31.8	.0
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	7.6	1.9	.0	12.5	1.9	.0	.0	40.9	.0
G 440	G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	10.6	3.7	.0	12.5	1.9	.0	.0	56.8	.0
G 441	G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (COUPLERS/TRIPLES)?	16.7	9.3	.0	25.0	1.9	.0	.9	72.7	.0
G 442	G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?	24.2	6.8	.0	12.5	2.8	4.8	.0	70.5	.0

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D TSK TITLES

306	306	316	316	362	362	362	918	MIN
51	52	50F	52F	51	53	54	50	IMA
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	OC
G 443 G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?								
3.0	3.1	.0	.0	1.9	.0	.0	40.9	.0
G 444 G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?								
15.2	5.0	.0	18.8	6.6	38.1	1.8	61.4	.0
G 445 G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?								
22.7	13.7	.0	18.8	2.8	23.8	.9	79.5	.0
G 446 G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?								
1.5	3.7	.0	.0	1.9	.0	.0	36.4	.0
G 447 G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?								
3.0	4.3	.0	.0	1.9	4.8	.0	29.5	.0
G 448 G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?								
4.5	5.6	.0	12.5	2.8	.0	.0	34.1	.0
G 449 G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?								
24.2	3.7	.0	12.5	1.9	.0	.0	79.5	.0
G 450 G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?								
12.1	6.8	.0	18.8	1.9	.0	.0	61.9	.0
G 451 G3-45 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS?								
16.7	6.8	.0	18.8	1.9	.0	.0	79.5	.0
G 452 G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS?								
1.5	1.9	.0	.0	.9	.0	.0	45.5	.0
H 453 H1-1 DO YOU USE OR REFER TO VARACTORS/VARICAP COMPONENTS?								
7.6	9.3	.0	18.8	3.8	.0	.9	38.6	.0
H 454 H1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS?								
34.8	14.9	.0	12.5	2.8	.0	.0	61.4	.0
H 455 H1-3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTOR COMPONENTS?								
27.3	18.0	.0	25.0	2.8	9.5	.0	95.5	.0
H 456 H1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS?								
62.1	25.5	.0	31.3	4.7	4.8	.9	93.2	.0
H 459 H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS?								
9.1	13.7	.0	6.3	5.7	4.8	3.5	34.1	.0
H 461 H1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS?								
7.6	7.5	.0	.0	2.8	.0	.0	20.5	.0
H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS?								
24.2	24.2	.0	18.8	2.8	.0	.0	93.2	.0
H 464 H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS?								
7.6	1.9	.0	6.3	1.9	.0	.0	86.4	.0
H 465 H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS?								
10.6	3.7	.0	6.3	1.9	.0	.0	75.0	.0
H 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS?								
6.1	1.9	.0	.0	1.9	.0	.0	77.3	.0
H 472 H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?								
72.7	75.8	.0	62.5	28.3	71.4	83.3	90.9	.0
H 484 H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?								
72.7	28.0	.0	56.3	9.4	19.0	2.5	68.2	.0
H 485 H2-19 DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?								
50.0	21.7	.0	25.0	6.6	4.8	1.8	61.4	.0
H 486 H2-20 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGES IN YOUR WORK WITH RECTIFIERS?								
25.8	18.6	.0	18.8	8.5	4.8	2.5	70.5	.0
H 487 H2-21 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN YOUR WORK WITH RECTIFIERS?								
53.0	44.7	.0	31.3	5.7	83.3	7.5	84.1	.0
H 491 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS?								
39.4	21.1	.0	12.5	3.8	9.5	2.5	65.2	.0
H 492 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS?								
27.3	16.1	.0	4.3	4.7	4.8	1.4	65.2	.0
H 493 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS?								
27.7	11.2	.0	12.5	2.8	4.8	1.2	52.7	.0
H 494 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS?								
31.8	11.8	.0	12.5	3.8	9.5	2.6	52.3	.0

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D TSM	TITLES	FCPT04 PAGE 206				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX				MIN IMA *C*
		306 (M)	306 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	
M 495	H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER?	9.1	5.0	.0	12.5	2.8	.0	3.5	22.7	.0
M 496	H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS OTHER THAN SOLID-STATE?	25.8	24.2	.0	25.0	13.2	33.3	7.9	50.0	.0
M 500	H3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?	42.4	12.4	.0	12.5	18.9	57.1	2.6	72.7	.0
M 501	H3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?	42.4	13.0	.0	12.5	16.0	61.9	.9	65.9	.0
M 502	H3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?	25.8	12.4	.0	12.5	6.6	14.3	.9	72.7	.0
M 503	H3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?	40.9	14.9	.0	18.8	13.2	57.1	.9	72.7	.0
M 504	H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?	28.8	14.3	.0	.0	7.5	9.5	.0	72.7	.0
M 506	H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?	27.3	8.1	.0	12.5	8.5	23.8	.0	65.9	.0
M 507	H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?	15.2	8.1	.0	.0	7.5	19.5	.0	50.0	.0
M 508	H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?	21.2	9.9	.0	6.3	10.4	23.8	.9	50.0	.0
M 509	H3-12 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL OSCILLATIONS)?	16.7	8.7	3.4	.0	1.9	.0	.0	59.1	.0
M 510	H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?	10.6	8.7	.0	.0	4.7	4.8	.0	45.5	.0
M 511	H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?	21.2	8.7	.0	12.5	3.8	9.5	.0	59.1	.0
M 512	H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?	33.3	11.8	.0	12.5	3.8	19.0	.0	65.9	.0
M 513	H3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?	40.9	10.6	3.4	6.3	3.8	.0	.0	65.9	.0
M 514	H3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOPS (PLL)?	10.6	4.3	.0	.0	4.7	.0	.0	34.1	.0
M 516	H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS?	10.6	3.7	.0	.0	.9	.0	.0	45.5	.0
M 517	H3-20 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS?	18.7	4.3	.0	6.3	.9	.0	.0	50.0	.0
M 518	H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?	4.5	2.5	.0	.0	.9	.0	.9	22.7	.0
M 519	H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?	6.1	2.5	.0	.0	.9	.0	.9	20.5	.0
M 520	H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATOR	16.7	3.1	.0	12.5	.9	9.5	.0	40.9	.0
M 521	H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?	34.8	8.1	.0	6.3	1.9	.0	.0	59.1	.0
M 522	H3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO) SINUSOIDAL OSCILLATORS?	13.6	4.3	.0	12.5	.9	.0	.0	40.9	.0
M 523	H3-26 DO YOU WORK WITH WHEATSTONE BRIDGE OSCILLATORS SINUSOIDAL OSCILLATORS?	9.1	5.0	.0	6.3	.0	.0	.0	50.0	.0
M 525	H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?	31.8	15.5	3.4	6.3	10.4	4.8	.0	65.9	.0
M 526	H3-29 DO YOU WORK WITH PULSED OSCILLATORS?	3.0	3.7	.0	6.3	1.9	.0	.0	43.2	.0
M 527	H3-30 DO YOU WORK WITH PUPST GENERATORS?	3.0	2.5	.0	6.3	1.9	.0	.0	34.1	.0
M 528	H3-31 DO YOU WORK WITH BLOCKED OSCILLATORS?	1.5	1.9	.0	6.3	.9	.0	.0	22.7	.0
I 529	I1-1 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 12-1; IF YES, CONTINUE.	65.7	24.2	.0	6.3	1.9	9.5	.0	34.1	.0
I 530	I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?	21.2	12.4	.0	.0	.0	4.8	.0	65.9	.0
I 531	I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORK FREQUENCY DETERMINING DEVICES (FDD)?	43.9	18.0	.0	6.3	.9	9.5	.0	65.9	.0
I 532	I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL FREQUENCY DETERMINING DEVICES (FDD)?	36.4	13.0	.0	.0	.0	.0	.0	71.5	.0

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O TSK	TITLES	306 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN
I 570	I3-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?	.0	1.2	.0	6.3	.9	.0	.0	20.5	.0
I 571	I3-22 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?	.0	1.2	.0	.0	1.9	.0	1.5	25.0	.0
I 572	I3-23 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)?	.0	.6	.0	.0	.9	.0	1.8	13.6	.0
I 573	I3-24 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?	.0	1.2	.0	.0	.9	.0	1.2	11.4	.0
I 574	I3-25 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?	.0	1.9	.0	.0	.9	.0	1.8	15.9	.0
I 575	I3-26 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?	.0	1.2	.0	6.3	.9	.0	1.8	20.5	.0
I 576	I3-27 DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?	.0	4.3	.0	37.5	1.9	.0	.9	36.4	.0
I 577	I3-28 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	.0	3.7	.0	12.5	1.9	.0	.0	29.5	.0
I 578	I3-29 DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?	1.5	5.0	.0	17.5	.9	4.8	.0	40.9	.0
I 579	I3-30 DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?	1.5	5.0	.0	12.5	1.9	4.8	.0	40.9	.0
I 580	I3-31 DO YOU USE OR REFER TO GAIN?	.0	3.1	.0	43.8	.9	4.8	.0	26.4	.0
I 581	I3-32 DO YOU USE OR REFER TO EFFICIENCY?	.0	2.5	.0	6.3	.9	4.8	.0	29.5	.0
I 582	I3-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	4.3	.0	43.5	2.8	4.8	.0	28.6	.0
I 583	I3-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	5.0	.0	27.5	.0	4.8	.0	42.2	.0
I 584	I3-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	.0	1.2	.0	19.8	.8	.0	.0	15.9	.0
I 585	I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?	1.5	5.6	.0	50.0	2.8	.0	.0	47.2	.0
I 586	I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?	3.0	8.1	.0	56.3	6.6	.0	.0	47.2	.0
I 587	I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS?	.0	3.1	.0	18.8	3.8	.0	.0	81.5	.0
I 588	I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?	1.5	1.9	.0	17.5	2.8	.0	.0	22.8	.0
I 589	I3-40 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES, CONTINUE.	1.5	3.1	.0	6.7	3.8	.0	.0	21.8	.0
I 590	J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	.0	1.2	.0	.0	.0	.0	.0	15.9	.0
I 591	J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.0	18.2	.0
I 592	J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	.0	1.2	.0	.0	.9	.0	.0	27.7	.0
I 593	J1-5 DO YOU TROUBLESHOOT OR REPAIR COMMON-CONNECTED AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.0	20.3	.0
I 594	J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.0	27.5	.0
I 595	J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE OF AMPLIFIER?	.0	1.2	.0	6.3	2.8	.0	.0	6.3	.0

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D TASK TITLES

C TSK	TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	IMA 54 (M)
J 596	J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)?	1.5	2.5	.0	25.0	3.8	.0	.9	43.2	.0
J 598	J2-3 DO YOU WORK WITH BEAM POWER TUBES?	1.5	1.2	.0	.0	1.9	.0	.0	38.6	.0
J 599	J2-4 DO YOU WORK WITH THYRATONS?	1.5	1.9	.0	6.3	.0	.0	.0	31.8	.0
J 600	J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?	4.5	13.7	.0	6.3	2.8	4.8	.9	50.0	.0
J 601	J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	6.1	10.6	.0	18.8	1.9	.0	.9	52.3	.0
J 602	J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	4.5	9.3	.0	6.3	1.9	.0	.9	38.6	.0
J 603	J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?	6.1	13.7	3.4	6.3	1.9	4.8	.0	72.7	.0
J 604	J2-9 DO YOU USE OR REFER TO AQUADAC COATINGS CONCERNING CRT'S?	1.5	1.9	.0	.0	.9	.0	.0	29.5	.0
J 605	J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?	1.5	3.1	.0	6.3	1.9	.0	.0	38.6	.0
J 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?	1.5	1.9	.0	.0	2.8	.0	.0	25.0	.0
J 607	J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?	.0	3.1	.0	.0	1.9	.0	.0	36.4	.0
J 608	J2-13 DO YOU USE OR REFER TO FLOURESCENCE CONCERNING CRT'S?	1.5	5.0	3.4	6.3	1.9	.0	.0	56.8	.0
J 609	J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?	3.0	5.6	.0	.0	1.9	.0	.0	54.5	.0
J 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?	1.5	3.1	.0	.0	1.9	.0	.0	25.0	.0
J 611	J3-1 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.	72.7	36.0	10.3	.0	26.4	23.8	22.6	18.2	.0
J 612	J3-2 DO YOU PERFORM TASKS ON FREQUENCY CONVERTER SYSTEMS STAGES?	16.7	9.3	3.4	.0	7.5	.0	.0	13.6	.0
J 613	J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?	13.6	3.1	3.4	.0	3.8	.0	.9	13.6	.0
J 614	J3-4 DO YOU PERFORM TASKS ON MODEN SYSTEMS STAGES?	68.2	14.3	3.4	.0	15.1	.0	11.4	11.4	.0
J 615	J3-5 DO YOU USE OR REFER TO THE METEODYNYING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?	6.1	.6	.0	.0	.9	.0	.0	11.4	.0
J 616	J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?	4.5	.0	3.4	.0	.9	.0	.0	11.4	.0
J 617	J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?	27.3	1.9	3.4	.0	2.8	4.8	.0	13.6	.0
K 618	K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.	4.5	2.5	3.4	.0	1.9	.0	1.8	9.1	.0
K 619	K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	3.4	.0	.9	.0	.9	9.1	.0
K 620	K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.0	.0	.9	6.8	.0
K 621	K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.5	.0	.9	9.1	.0
K 622	K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	3.4	.0	.9	.0	.9	9.1	.0
K 623	K1-6 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS?	1.5	1.2	.0	.0	.9	.0	.0	6.8	.0
K 624	K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.9	.0	.9	9.1	.0

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K 625	K1-8 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?	1.5	1.2	.0	.0	.9	.0	.0	.0
K 626	K1-9 DO YOU PERFORM TASKS ON RF OSCILLATORS/SYNTHESIZERS?	1.5	.6	.0	.0	.9	.0	.0	.0
K 627	K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS?	1.5	.6	.0	.0	.5	.0	.0	.0
K 628	K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	1.5	1.2	.0	.0	.0	.0	.0	.0
K 629	K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	1.5	.6	.0	.0	.0	.0	.0	.0
K 630	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?	1.5	.6	.0	.0	.9	.0	.0	.0
K 631	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	.0	.6	.0	.0	.0	.0	.0	.0
K 632	K1-15 DO YOU PERFORM TASKS ON DETECTORS?	1.5	.6	.0	.0	.0	.0	.0	.0
K 633	K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?	1.5	.6	.0	.0	.9	.0	.0	.0
K 634	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?	.0	1.9	.0	.0	1.9	.0	.9	.0
K 635	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?	.0	1.9	.0	.0	.9	.0	.0	.0
K 636	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?	.0	1.2	.0	.0	.9	.0	.0	.0
K 637	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?	1.5	1.9	.0	.0	.0	.0	.0	.0
K 638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	7.6	1.2	3.4	.0	3.8	.0	1.6	.0
K 639	K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	3.4	.0	.9	.0	.9	.0
K 640	K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	.0	.0	.9	.0	.9	.0
K 641	K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	.0	.0	.9	.0	.9	.0
K 642	K2-5 DO YOU THROUGHSHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	3.4	.0	.0	.0	1.6	.0
K 643	K2-6 DO YOU THROUGHSHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?	1.5	.6	3.4	.0	.9	.0	.9	.0
K 644	K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	.0	.0	.0	.0	.0	.0
K 645	K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?	3.0	.6	.0	.0	.9	.0	.0	.0
K 646	K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?	3.0	.6	.0	.0	.9	.0	.9	.0
K 647	K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	4.0	.6	.0	.0	1.9	.0	.0	.0
K 648	K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?	0.5	.6	.0	.0	1.0	.0	.0	.0
K 649	K2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)?	1.5	.6	.0	.0	1.0	.0	.0	.0
K 650	K2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	4.5	.6	.0	.0	1.9	.0	.0	.0
K 651	K2-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	1.5	.6	.0	.0	1.9	.0	.0	.0
K 652	K2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?	1.5	.6	.0	.0	1.9	.0	.0	.0
K 653	K2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	1.5	.6	.0	.0	1.9	.0	.0	.0
K 654	K2-17 DO YOU PERFORM TASKS ON LIMITERS?	1.5	.6	.0	.0	.0	.0	.0	.0
K 655	K2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?	1.5	.6	.0	.0	.9	.0	.9	.0
K 656	K2-19 DO YOU PERFORM TASKS ON CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?	3.0	.6	.0	.0	.0	.0	.0	.0
K 657	K2-20 DO YOU TRACE CURRENTS OF CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?	3.0	.6	.0	.0	1.0	.0	.0	.0
K 658	K2-21 DO YOU TRACE CURRENTS OF CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?	1.5	.6	.0	.0	.0	.0	.0	.0
K 659	K2-22 DO YOU TRACE SIGNAL LEVEL CURVES (RSL)?	1.5	.6	.0	.0	.0	.0	.0	.0

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D TASK TITLES

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K 660 K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?	31.8	6.8	44.8	50.0	4.7	.0	.9	40.9	.0			
K 662 K3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?	19.2	5.6	3.4	50.0	5.7	.0	.9	36.4	.0			
K 664 K3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?	30.3	6.2	10.3	43.8	2.8	.0	.9	43.2	.0			
K 665 K3-6 DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?	17.1	5.0	.0	50.0	1.9	.0	.0	36.4	.0			
K 667 K3-8 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?	33.3	6.8	20.7	37.5	3.8	.0	.0	40.9	.0			
K 668 K3-9 DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?	13.6	5.6	.0	62.5	4.7	.0	.0	38.6	.0			
K 669 K3-10 DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?	15.2	5.6	3.4	62.5	3.8	.0	.0	38.6	.0			
K 670 K3-11 DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?	12.1	5.0	3.4	50.0	1.9	.0	.0	36.4	.0			
K 671 K3-12 DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?	12.1	5.6	.0	62.5	5.7	.0	.0	38.6	.0			
K 672 K3-14 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND- CARRY METHOD?	27.3	11.8	.0	25.0	2.8	.0	1.8	45.5	.0			
K 674 K3-15 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD?	37.9	13.0	.0	43.8	3.8	4.8	4.4	50.0	.0			
K 676 K3-16 DO YOU ADD OCTAL NUMBERS?	22.7	6.8	24.1	31.3	1.9	.0	1.8	36.4	.0			
K 678 K3-17 DO YOU SUBTRACT OCTAL NUMBERS?	21.2	6.8	17.2	31.3	1.9	.0	1.8	36.4	.0			
K 679 K3-18 DO YOU ADD HEXADECIMAL NUMBERS?	12.1	5.6	.0	56.3	1.9	.0	1.8	36.4	.0			
K 678 K3-19 DO YOU SUBTRACT HEXADECIMAL NUMBERS?	10.6	5.6	.0	56.3	1.9	.0	.9	36.4	.0			
K 679 K3-20 DO YOU DIVIDE BINARY NUMBERS?	27.3	8.7	.0	25.0	2.8	4.8	4.4	36.4	.0			
K 679 K3-21 DO YOU MULTIPLY BINARY NUMBERS?	27.3	8.1	.0	31.3	2.8	4.8	4.4	36.4	.0			
K 680 K3-23 DO YOU USE OR REFER TO GRAY CODE?	3.0	1.9	.0	6.3	1.9	.0	2.6	9.1	.0			
K 682 K3-24 DO YOU USE OR REFER TO ICAD CODE?	1.5	.6	.0	6.3	.0	.0	1.8	13.6	.0			
K 684 K3-25 DO YOU USE OR REFER TO EXCESS-3 CODE?	1.5	1.2	.0	.0	.9	.0	1.8	13.6	.0			
L 686 L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR "AND" LOGIC SYMBOLS OR GATES?	51.5	19.9	6.9	12.5	1.9	4.8	.0	75.0	.0			
L 687 L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR "OR" LOGIC SYMBOLS OR GATES?	50.0	19.3	6.9	12.5	1.9	4.8	.0	75.0	.0			
L 688 L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR "AND" OR "OR" LOGIC SYMBOLS WITH STATE INDICATORS?	51.5	18.0	6.9	12.5	1.9	4.8	.0	72.7	.0			
L 689 L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR "EXCLUSIVE OR" LOGIC SYMBOLS OR GATES?	51.5	17.4	6.9	12.5	.9	.0	.0	75.0	.0			
L 690 L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR "AND" LOGIC SYMBOLS OR GATES?	71.2	32.3	13.0	25.0	1.9	14.3	.0	75.0	.0			
L 691 L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR "OR" LOGIC SYMBOLS OR GATES?	71.2	32.3	13.6	25.0	1.9	14.3	.0	75.0	.0			
L 692 L1-8 DO YOU USE OR REFER TO TRUTH TABLES FOR "AND" OR "OR" LOGIC SYMBOLS WITH STATE INDICATORS?	65.7	30.9	13.8	25.0	1.9	14.3	.0	72.5	.0			
L 693 L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR "EXCLUSIVE OR" LOGIC SYMBOLS?	69.7	29.8	6.9	31.3	1.9	4.8	.0	75.0	.0			
L 694 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "EXCLUSIVE OR" GATES?	81.8	32.3	20.7	31.3	1.9	14.3	.0	77.3	.0			
L 695 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED "AND" GATES?	78.8	34.2	24.1	31.3	.9	14.3	.0	75.0	.0			
L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "N" BARS?	60.6	4.3	.0	.0	1.9	.0	.0	13.6	.0			
L 697 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "M" BARS?	60.6	3.1	.0	.0	.9	.0	.0	13.6	.0			
L 698 L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINES?	59.0	8.7	.0	6.3	.9	.0	.0	25.0	.0			

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D TSM	TITLES	306 (M)	306 (M)	51 (M)	52 (M)	316 (M)	316 (M)	52F (M)	316 (M)	362 (M)	362 (M)	51 (M)	51 (M)	54 (M)	50 (M)	918 (M)	MIN IMA *C*
L 729	L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS?	22.7	8.7	22.4	22.4	25.0	25.0	25.0	25.0	9.5	9.5	4.7	4.7	9.5	9.5	29.5	.0
L 730	L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	72.7	22.4	22.4	22.4	25.0	25.0	25.0	25.0	9.5	9.5	4.7	4.7	9.5	9.5	59.1	.0
L 731	L3-2 DO YOU USE OR REFER TO UP-COUNTERS?	63.6	20.5	20.5	20.5	25.0	25.0	25.0	25.0	14.3	14.3	4.7	4.7	9.5	9.5	52.3	.0
L 732	L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS?	59.1	17.4	17.4	17.4	18.8	18.8	18.8	18.8	9.5	9.5	1.9	1.9	9.5	9.5	50.0	.0
L 733	L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS?	63.6	20.5	20.5	20.5	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	40.9	.0
L 734	L3-5 DO YOU USE OR REFER TO PARALLEL COUNTERS?	54.5	16.1	16.1	16.1	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	38.5	.0
L 735	L3-6 DO YOU USE OR REFER TO RING COUNTERS?	34.8	10.6	10.6	10.6	3.4	3.4	3.4	3.4	9.5	9.5	1.9	1.9	9.5	9.5	31.8	.0
L 736	L3-7 DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?	21.2	8.7	8.7	8.7	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	40.9	.0
L 738	L3-9 DO YOU USE OR REFER TO DOWN CLOCKS?	50.0	16.8	16.8	16.8	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	52.3	.0
L 739	L3-10 DO YOU USE OR REFER TO UP CLOCKS?	50.0	16.1	16.1	16.1	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	54.5	.0
L 740	L3-11 DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?	27.3	5.6	5.6	5.6	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	34.1	.0
L 741	L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS?	53.0	16.8	16.8	16.8	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	47.7	.0
L 742	L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS?	50.0	14.9	14.9	14.9	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	45.5	.0
L 743	L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS?	39.4	12.4	12.4	12.4	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	43.2	.0
L 744	L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS?	27.3	8.1	8.1	8.1	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	38.6	.0
L 745	L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS?	30.3	9.3	9.3	9.3	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	29.5	.0
L 746	L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS?	43.0	14.3	14.3	14.3	6.9	6.9	6.9	6.9	9.5	9.5	1.9	1.9	9.5	9.5	36.4	.0
L 747	L3-18 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS?	60.6	14.9	14.9	14.9	3.4	3.4	3.4	3.4	9.5	9.5	1.9	1.9	9.5	9.5	38.6	.0
L 748	L3-19 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?	37.9	6.2	6.2	6.2	9.5	9.5	9.5	9.5	4.8	4.8	1.9	1.9	9.5	9.5	27.3	.0
L 749	L3-20 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS?	16.7	4.3	4.3	4.3	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	31.8	.0
L 750	L3-21 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES?	34.8	11.2	11.2	11.2	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	31.8	.0
L 751	L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?	51.5	13.7	13.7	13.7	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	40.9	.0
M 752	M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?	42.4	12.4	12.4	12.4	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	75.0	.0
M 753	M1-2 DO YOU WORK WITH TRIANGULAR WAVE GENERATOR TIMING CIRCUITS?	15.2	5.6	5.6	5.6	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	54.5	.0
M 754	M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?	37.9	14.9	14.9	14.9	12.5	12.5	12.5	12.5	9.5	9.5	1.9	1.9	9.5	9.5	72.7	.0
M 755	M1-4 DO YOU WORK WITH LOCKING OSCILLATOR TIMING CIRCUITS?	15.2	5.6	5.6	5.6	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	39.5	.0
M 756	M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	37.9	6.2	6.2	6.2	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	25.0	.0
M 757	M1-6 DO YOU USE OR REFER TO RISE TIME?	32.3	14.9	14.9	14.9	50.0	50.0	50.0	50.0	9.5	9.5	1.9	1.9	9.5	9.5	68.2	.0
M 758	M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?	21.2	14.3	14.3	14.3	50.0	50.0	50.0	50.0	9.5	9.5	1.9	1.9	9.5	9.5	56.3	.0
M 759	M1-8 DO YOU USE OR REFER TO SLEEP TIME?	39.4	19.3	19.3	19.3	43.4	43.4	43.4	43.4	9.5	9.5	1.9	1.9	9.5	9.5	77.3	.0
M 760	M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?	16.7	11.2	11.2	11.2	6.3	6.3	6.3	6.3	9.5	9.5	1.9	1.9	9.5	9.5	56.9	.0

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O TSK TITLES

306 (H)	306 (H)	316 52F (H)	316 52F (H)	362 51 (H)	362 53 (H)	362 54 (H)	918 50 (H)	MIN IMA %
9.1	13.0	3.4	6.3	5.7	.0	.0	72.7	.0
4.5	1.9	.0	.0	1.9	.0	.0	31.8	.0
60.6	8.1	34.5	.0	6.6	.0	.0	40.9	.0
50.1	6.8	6.9	.0	6.6	.0	.0	40.9	.0
57.6	7.5	37.9	.0	7.5	.0	.0	40.9	.0
62.1	5.6	3.4	.0	3.8	.0	.0	31.8	.0
40.0	6.2	3.4	.0	4.7	.0	.9	29.5	.0
50.0	5.6	20.7	.0	5.7	.0	.9	36.4	.0
30.3	5.0	17.2	.0	3.8	.0	.0	27.3	.0
6.1	6.2	3.4	.0	7.5	.0	2.6	18.2	.0
1.5	.6	.0	25.0	1.9	.0	.0	13.6	.0
.0	.6	.0	12.5	1.9	.0	.0	9.1	.0
.0	.6	.0	12.5	1.9	.0	.0	6.9	.0
.0	.6	.0	6.3	1.9	.0	.0	6.8	.0
.0	.6	.0	18.8	.9	.0	.0	9.1	.0
.0	.6	.0	18.8	.9	.0	.0	9.1	.0
.0	.6	.0	18.8	.9	.0	.0	6.8	.0
.0	.6	.0	.0	.9	.0	.0	4.5	.0
.0	1.2	.0	6.3	.9	.0	.0	6.8	.0
1.5	.6	.0	12.5	.9	.0	.0	9.1	.0
1.5	1.9	.0	6.3	.0	.0	.0	6.8	.0
1.5	1.9	.0	18.8	.0	.0	.0	9.1	.0
47.9	21.1	3.4	12.5	2.8	.0	1.6	68.2	.0
31.8	15.5	.0	.0	1.9	.0	.0	59.1	.0
34.8	16.8	.0	.0	2.8	.0	.0	63.6	.0
19.7	11.8	.0	.0	2.8	.0	.0	54.5	.0
18.2	9.3	3.4	.0	2.8	.0	.0	54.5	.0

M 800 M3-23 DO YOU WORK WITH SERVOS OR SYNCHROS MOTORS?

M 801 M3-24 DO YOU WORK WITH SHADED-POLE MOTORS?

M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?

M 803 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?

M 804 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?

M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?

M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?

M 807 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?

M 808 M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?

N 810 N1-11 DO YOU CONSIDER PLASTIC RESPONSE OF METER MOVEMENTS?

N 821 N2-1 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1; IF YES, CONTINUE.

N 822 N2-2 DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 823 N2-3 DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 824 N2-4 DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 825 N2-5 DO YOU TROUBLESHOOT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?

N 826 N2-6 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS?

N 827 N2-7 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OF SATURABLE REACTOR COMPONENTS?

N 828 N2-8 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?

N 829 N2-9 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?

N 830 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?

N 831 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS?

N 832 N2-12 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS?

N 833 N3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N1-1; IF YES, CONTINUE.

N 834 N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?

N 835 N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?

N 836 N3-4 DO YOU USE OR REFER TO PULSE OCCURRENCE TIME (PET)?

N 837 N3-5 DO YOU USE OR REFER TO PULSE OCCURRENCE FREQUENCY (PPF)?

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PERCENT 5-SKILL LEVEL MEMBERS PERFORMING										OCCUPATIONAL SKILLS ANALYSIS									
										USAFOMC (AIC) RANDOLPH AFB TX									
D TSK		TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA #C*								
0 863	01-10 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?		1.5	1.2	.0	.0	.0	.0	.0	.0	.0								
0 864	01-11 DO YOU PERFORM TASKS ON SSP CR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?		1.5	1.2	.0	.0	.0	.0	.0	.0	.0								
0 865	01-12 DO YOU PERFORM TASKS ON SSP OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?		1.5	.6	.0	.0	.0	.0	.0	.0	.0								
0 866	01-13 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?		.0	.6	.0	.0	.9	.0	.0	.0	.0								
0 867	01-14 DO YOU PERFORM TASKS ON SSE OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?		.0	.6	.0	.0	.9	.0	.0	.0	.0								
0 868	01-15 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?		3.0	1.2	3.4	.0	.9	.0	.0	.0	.0								
0 869	01-16 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?		1.5	1.2	.0	.0	.9	.0	.0	.0	.0								
0 870	01-17 DO YOU PERFORM TASKS ON SSP OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?		3.0	1.2	.0	.0	.0	.0	.0	.0	.0								
0 871	01-18 DO YOU PERFORM TASKS ON SSR OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?		1.5	1.2	6.9	.0	.0	.0	.0	.0	.0								
0 872	01-19 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM PF AMPLIFIER STAGE?		1.5	.6	3.4	.0	.0	.0	.0	.0	.0								
0 873	01-20 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?		.0	.6	3.4	.0	.9	.0	.0	.0	.0								
0 874	01-21 DO YOU PERFORM TASKS ON SSR OF ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?		.0	1.2	.0	.0	.0	.0	.0	.0	.0								
0 875	01-22 DO YOU PERFORM TASKS ON SSE OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?		1.5	1.2	6.9	.0	.9	.0	.0	.0	.0								
0 876	01-23 DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	3.4	.0	.0	.0	.0	.0	.0								
0 877	01-24 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	3.4	.0	.0	.0	.0	.0	.0								
0 878	01-25 DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSE TRANSMIT OR RECEIVE SYSTEMS?		.0	1.2	.0	.0	.0	.0	.0	.0	.0								
0 879	01-26 DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSE TRANSMIT OR RECEIVE SYSTEMS?		.0	.6	.0	.0	.0	.0	.0	.0	.0								
0 880	01-27 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB OR ISB TRANSMITTERS?		.0	.6	.0	.0	.0	.0	.0	.0	.0								
0 881	01-28 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH SSE OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?		1.5	1.2	.0	.0	.0	.0	.0	.0	.0								
0 882	01-29 DO YOU TRACE SIGNALS OF CURRENT PATHS THROUGH SSE OR ISB RECEIVER SCHEMATIC DIAGRAMS?		1.5	.6	.0	.0	.0	.0	.0	.0	.0								
0 883	01-30 DO YOU PERFORM AEROGRAPHIC STATION ASSESSMENT PROGRAMS (ASA)?		.0	.6	.0	.0	.9	.0	.0	.0	.0								
0 884	01-31 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 01-3; IF YES, CONTINUE.		1.5	1.9	.0	.0	2.8	.0	2.6	13.5	.0								
0 885	01-32 DO YOU KNOW PULSE MODULATION SYSTEMS?		1.5	1.9	.0	.0	2.8	.0	1.8	13.6	.0								
0 886	01-33 DO YOU KNOW PULSE MODULATION SYSTEMS?		1.5	1.9	.0	.0	2.8	.0	1.8	13.6	.0								
0 887	01-34 DO YOU KNOW PULSE MODULATION SYSTEMS?		1.5	1.9	.0	.0	2.8	.0	1.8	13.6	.0								
0 888	01-35 DO YOU KNOW PULSE MODULATION SYSTEMS?		1.5	1.9	.0	.0	2.8	.0	2.6	13.6	.0								

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PERCENT 5-SKILL LEVEL MEMBERS PERFORMING													ACCESSIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX			
D YSK	TITLES		FCPT04 PAGE	219	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (H)	362 53 (M)	362 54 (H)	918 50 (H)	MIN IMA ACC			
O 889	OZ-6 DO YOU TROUBLESHOOT TO PULSC MODULATION SYSTEM COMPONENTS?				1.5	1.2	.0	.0	.9	.0	1.8	13.6	.0			
O 890	OZ-7 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?				1.5	1.9	.0	.0	2.8	.0	2.6	11.4	.0			
O 891	OZ-8 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?				1.5	1.2	.0	.0	.0	.0	1.3	13.6	.0			
O 892	OZ-9 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?				1.5	.0	.0	.0	1.9	.0	.0	15.9	.0			
O 893	OZ-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?				2.0	.6	.0	.0	1.9	.0	1.8	15.9	.0			
O 894	OZ-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?				1.5	.0	.0	.0	.0	.0	.0	11.4	.0			
O 895	OZ-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?				4.5	.0	.0	.0	.9	.0	.9	11.4	.0			
O 896	OZ-13 DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?				7.0	.6	.0	.0	2.8	.0	1.8	11.4	.0			
O 897	OZ-14 DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?				4.5	.6	.0	.0	.9	.0	.0	15.9	.0			
O 898	OZ-15 DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?				7.0	.0	.0	.0	.9	.0	2.2	4.8	.0			
O 899	OZ-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?				.0	.6	.0	.0	.9	.0	.0	15.9	.0			
O 900	OZ-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CIRCUITS AND CHARGING DIODE STAGE?				.0	.0	.0	.0	.0	.0	.0	.0	.0			
O 901	OZ-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?				1.5	.6	.0	.0	2.8	.0	.0	.0	.0			
O 902	OZ-19 DO YOU PERFORM TASKS IN PULSE MODULATION SYSTEM TIMER STAGE?				1.5	.0	.0	.0	.0	.0	.0	.0	.0			
O 903	OZ-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS TRIGGER STAGE?				.0	.0	.0	.0	.0	.0	.0	.0	.0			
O 904	OZ-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSDUCER STAGE?				1.5	.0	.0	.0	.0	.0	.0	.0	.0			
O 905	OZ-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUNE STAGE?				.0	.6	.0	.0	.0	.0	.0	.0	.0			
O 906	OZ-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?				1.5	.6	.0	.0	.0	.0	.0	.0	.0			
O 907	OZ-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?				1.5	.0	.0	.0	.0	.0	.0	.0	.0			
O 908	OZ-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?				1.5	.6	.0	.0	.0	.0	.0	.0	.0			
O 909	OZ-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?				1.5	.0	.0	.0	.0	.0	.0	.0	.0			
O 910	OZ-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?				.0	1.7	.0	.0	.0	.0	.0	.0	.0			
O 911	OZ-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE VIDEO AMPLIFIER STAGE?				.0	.6	.0	.0	.0	.0	.0	.0	.0			
O 912	OZ-29 DO YOU USE COINTEGRATOR TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?				1.5	.6	.0	.0	.0	.0	.0	.0	.0			

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D TSM	TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA ACC
0 913	02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.2	.0	.0	.9	.0	.0	13.6	.0
0 914	02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	.9	.0	.0	15.9	.0
0 915	02-32 DO YOU USE OR REFER TO PULSE SHAPE WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.2	.0	.0	.0	.0	.0	15.9	.0
0 916	02-33 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	.0	1.2	.0	.0	.0	.0	.0	13.6	.0
0 917	02-34 DO YOU USE OR REFER TO AVERAGE POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	.0	1.2	.0	.0	.0	.0	.0	11.4	.0
0 918	02-35 DO YOU USE OR REFER TO DUTY CYCLE (DC) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	.6	.0	.0	.0	.0	.0	11.4	.0
0 919	02-36 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	1.5	.6	.0	.0	.0	.0	.0	9.1	.0
0 920	02-37 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	1.5	.6	.0	.0	.0	.0	.0	11.4	.0
0 921	02-38 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS?	1.5	.0	.0	.0	.0	.0	.0	6.8	.0
0 922	02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS?	1.5	1.2	.0	.0	.9	.0	1.8	13.6	.0
0 923	02-40 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS?	1.5	.6	.0	.0	.9	.0	.9	13.6	.0
0 924	03-1 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB? IF NO, GO TO ITEM PI-1; IF YES, CONTINUE.	1.5	5.6	20.7	.0	.9	.0	1.8	6.8	.0
0 925	03-2 DO YOU INSPECT ANTENNAS?	1.5	4.3	17.2	.0	.0	.0	.9	6.8	.0
0 926	03-3 DO YOU CLEAN ANTENNAS?	1.5	3.7	.0	.0	.0	.0	.0	2.3	.0
0 927	03-4 DO YOU PHYSICALLY ALIGN ANTENNAS?	1.5	3.1	6.9	.0	.0	.0	.0	4.5	.0
0 928	03-5 DO YOU ELECTRICALLY ALIGN ANTENNAS?	.0	2.5	3.4	.0	.0	.0	.0	2.3	.0
0 929	03-6 DO YOU TROUBLESHOOT TO ANTENNAS?	1.5	3.1	24.1	.0	.0	.0	.0	4.5	.0
0 930	03-7 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS?	.0	1.9	6.9	.0	.0	.0	.0	4.5	.0
0 931	03-8 DO YOU REMOVE OR INSTALL ANTENNAS?	1.5	3.1	.0	.0	.0	.0	.0	4.5	.0
0 932	03-9 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS?	.0	1.9	.0	.0	.0	.0	.0	4.5	.0
0 933	03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES?	.0	2.5	.0	.0	.0	.0	.0	2.3	.0
0 934	03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES?	.0	1.9	.0	.0	.0	.0	.0	2.3	.0
0 935	03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS?	1.5	1.9	.0	.0	.0	.0	.0	2.3	.0
0 936	03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS RESISTIVE LOADS TO THE GENERATOR?	.0	1.2	.0	.0	.0	.0	.0	2.3	.0
0 937	03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR?	2.0	.6	.0	.0	1.9	.0	1.8	2.3	.0
0 938	03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR?	1.5	.6	.0	.0	.0	.0	.9	2.3	.0
0 939	03-16 DO YOU WORK WITH HERTZ BASIC ANTENNAS?	.0	1.2	13.8	.0	.0	.0	.0	2.3	.0

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D TSK	TITLES	306 51 (M)	306 52 (M)	316 SNF (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA %
0 940 03-17 00	YOU WORK WITH MARCONI BASIC ANTENNAS?	.0	.6	3.4	.0	.0	.0	.0	.0	.0
0 941 03-18 00	YOU WORK WITH RHOMBIC BASIC ANTENNAS?	.0	.6	.0	.0	.0	.0	.0	.0	.0
0 942 03-19 00	YOU WORK WITH DIPOLE BASIC ANTENNAS?	.0	3.1	6.9	.0	.9	.0	.0	2.3	.0
0 943 03-20 00	YOU WORK WITH SCIMITAR BASIC ANTENNAS?	.0	.0	.0	.0	.9	.0	.0	.0	.0
0 944 03-21 00	YOU WORK WITH PARABOLIC BASIC ANTENNAS?	.0	3.1	.0	.0	.0	.0	.0	.0	.0
0 945 03-22 00	YOU WORK WITH GROUND PLANE BASIC ANTENNAS?	.0	3.7	3.4	.0	.0	.0	.0	4.5	.0
0 946 03-23 00	YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?	.0	2.5	6.9	.0	.0	.0	.0	2.3	.0
0 947 03-24 00	YOU WORK WITH BROADSIDE ARRAYS?	.0	1.2	.0	.0	.0	.0	.0	.0	.0
0 948 03-25 00	YOU WORK WITH END-FIRE ARRAYS?	1.5	1.2	3.4	.0	.0	.0	.0	.0	.0
0 949 03-26 00	YOU WORK WITH CARDIOID ARRAYS?	1.5	1.2	.0	.0	.0	.0	.0	.0	.0
0 950 03-27 00	YOU WORK WITH COLLINER ARRAYS?	1.5	.6	.0	.0	.0	.0	.0	.0	.0
0 951 03-28 00	YOU WORK WITH PHASE ARRAYS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 952 03-29 00	YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	4.5	.0
0 953 03-30 00	YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?	.0	.6	.0	.0	.0	.0	.0	.0	.0
0 954 03-31 00	YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?	.0	1.2	.0	.0	.0	.0	.0	4.5	.0
0 955 03-32 00	YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
0 956 03-33 00	YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?	.0	1.2	.0	.0	.0	.0	.0	2.3	.0
0 957 03-34 00	YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?	.0	1.2	.0	.0	.0	.0	.0	2.3	.0
0 958 03-35 00	ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?	.0	1.2	.0	.0	.0	.0	.0	2.3	.0
0 959 03-36 00	ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?	.0	.6	.0	.0	.0	.0	.0	.0	.0
0 960 03-37 00	YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?	.0	.6	.0	.0	.0	.0	.0	2.3	.0
0 961 03-38 00	YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?	.0	2.5	.0	.0	.0	.0	.0	2.3	.0
0 962 03-39 00	DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS?	.0	1.2	.0	.0	.0	.0	.0	.0	.0
0 963 03-40 00	DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS?	.0	1.2	.0	.0	.0	.0	.0	.0	.0
0 964 03-41 00	DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T KNOW WHAT KIND OF ELEMENT?	.0	2.5	17.0	.0	.0	.0	.0	2.3	.0
0 965 03-42 00	DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?	.0	3.7	6.9	.0	.0	.0	.0	.0	.0
0 966 03-43 00	DO YOU WORK ON BIDIRECTIONAL ANTENNAS?	.0	3.7	3.4	.0	.0	.0	.0	.0	.0
0 967 03-44 00	DO YOU WORK ON OMNIDIRECTIONAL ANTENNAS?	1.5	4.3	17.0	.0	.0	.0	.0	4.5	.0
0 968 03-45 00	DO YOU WORK WITH ROTARY ANTENNA ARRAYS?	.0	2.5	3.4	.0	.0	.0	.0	.0	.0
0 969 01-1 00	IF IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES? (DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES.) IF YES, GO TO ITEM 42-1; IF YES, CONTINUE.	7.6	14.9	.0	.0	39.6	23.8	34.2	4.5	.0

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D TSK TITLES

P 970 P1-2 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE COPPER LOSS OR "I SUB 2 P" LOSS IN TRANSMISSION
LINES?

P 971 P1-3 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN
TRANSMISSION LINES?

P 972 P1-4 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE RADIATION LOSS?

P 973 P1-5 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE DIELECTRIC LOSS?

P 974 P1-6 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE LEAKAGE LOSSES?

P 975 P1-7 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE FAPADAY SHIELD?

P 976 P1-8 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES?

P 977 P1-9 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES?

P 978 P1-10 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES?

P 979 P1-11 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION
LINES?

P 980 P1-12 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION
LINES?

P 981 P1-13 DO YOU TROUBLESHOOT TRANSMISSION LINES?

P 982 P1-14 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN
TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION
(OPEN, SHORTED, CAPACITIVE, INDUCTIVE)?

P 983 P1-15 DO YOU SELECT APPROPRIATE TRANSMISSION LINE
TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS?

P 984 P1-16 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE
TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS?

P 985 P1-17 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF
TRANSMISSION LINES?

P 986 P1-18 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF
TRANSMISSION LINES?

P 987 P1-19 DO YOU PERFORM THE CALCULATIONS NECESSARY TO
DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH
MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO
LOADS?

P 988 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING MATCHING TRANSFORMERS?

P 989 P1-21 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING DELTA MATCHING?

P 990 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC
IMPEDANCE (Z0) OF TRANSMISSION LINES?

P 991 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF
TRANSMISSION LINES?

P 992 P1-24 DO YOU USE OR REFER TO THE TERM CUT OFF FREQUENCY OF
TRANSMISSION LINES?

306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA *(<)
1.5	1.9	.0	.0	5.7	4.8	1.8	2.3	.0
1.5	.6	.0	.0	6.6	.0	.9	2.3	.0
3.0	3.1	.0	.0	4.7	.0	.0	2.3	.0
3.0	1.2	.0	.0	8.5	.0	.0	2.3	.0
4.5	5.0	.0	.0	10.4	.0	3.5	2.3	.0
1.5	2.5	.0	.0	3.8	.0	1.8	2.3	.0
3.0	10.6	.0	.0	36.3	23.8	26.3	.0	.0
1.5	8.1	.0	.0	16.0	4.8	14.0	2.3	.0
4.5	8.7	.0	.0	18.9	4.8	14.0	2.3	.0
6.1	11.8	.0	.0	11.3	.0	7.9	4.5	.0
3.0	5.6	.0	.0	5.7	.0	2.6	.0	.0
4.5	10.6	.0	.0	35.8	19.0	33.3	4.5	.0
3.0	8.7	.0	.0	22.6	4.8	7.0	2.3	.0
3.0	1.9	.0	.0	5.7	.0	.0	4.5	.0
3.0	7.5	.0	.0	15.1	19.0	8.8	4.5	.0
.0	.6	.0	.0	1.9	.0	.0	2.3	.0
.0	.6	.0	.0	1.9	.0	.0	2.3	.0
.0	.6	.0	.0	1.9	.0	.0	2.3	.0
1.5	1.9	.0	.0	14.2	14.3	2.6	2.3	.0
.0	.0	.0	.0	1.9	.0	1.3	2.3	.0
.0	.0	.0	.0	5.7	9.5	1.8	4.5	.0
.0	.0	.0	.0	4.7	.0	.9	2.3	.0
.0	.0	.0	.0	4.7	.0	.0	2.3	.0

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D TSK

TITLE

306 316 324 362 362 362 918 MIN
51 52 53 54 50 IMA
(M) (M) (M) (M) (M) MC

P1046 P3-3 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1047 P3-4 DO YOU USE OR REFER TO LEAD INDUCTANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1048 P3-5 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

P1049 P3-6 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION?

P1050 P3-7 DO YOU USE OR REFER TO ELECTRON BUNCHING?

P1051 P3-8 DO YOU WORK WITH TRO-CAVITY KLYSTRONS?

P1052 P3-9 DO YOU WORK WITH THREE-CAVITY KLYSTRONS?

P1053 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS?

P1054 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)?

P1055 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS?

P1056 P3-13 DO YOU WORK WITH UP-CONVERTED PARAMETRIC AMPLIFIERS?

P1057 P3-14 DO YOU WORK WITH MAGNETRONS?

P1058 P3-15 DO YOU WORK WITH BACKWARD WAVE OSCILLATORS (BWO)?

P1059 P3-16 DO YOU INSPECT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1060 P3-17 DO YOU CLEAN KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1061 P3-18 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY?

P1062 P3-19 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY?

P1063 P3-20 DO YOU PERFORM OPERATIONAL CHECKS ON KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1064 P3-21 DO YOU TROUBLESHOOT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?

P1065 P3-22 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRONS OR TWT'S?

P1066 P3-23 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS?

P1067 P3-24 DO YOU INSPECT PARAMETRIC AMPLIFIERS?

P1068 P3-25 DO YOU CLEAN PARAMETRIC AMPLIFIERS?

P1069 P3-26 DO YOU ADJUST PARAMETRIC AMPLIFIERS?

P1070 P3-27 DO YOU TUNE PARAMETRIC AMPLIFIERS?

P1071 P3-28 DO YOU PERFORM OPERATIONAL CHECKS ON PARAMETRIC AMPLIFIERS?

P1072 P3-29 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS?

P1073 P3-30 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIERS?

P1074 P3-31 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS?

P1075 P3-32 DO YOU INSPECT MAGNETRONS?

P1076 P3-33 DO YOU CLEAN MAGNETRONS?

P1077 P3-34 DO YOU TUNE MAGNETRONS?

P1078 P3-35 DO YOU TROUBLESHOOT MAGNETRONS?

P1079 P3-36 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS?

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C TASK TITLES

306 (M)	306 52 (M)	316 50F (M)	325 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN TMA *C*
P1060 P3-37 DO YOU TROUBLESHOOT MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1061 P3-38 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1062 P3-39 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0
P1067 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1064 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1065 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1064 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FEEDBACK LOOP COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1067 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF DRIFT SPACE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1068 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1069 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1090 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1091 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1092 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX (REFLECTION) PLATE COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	.0	2.3	.0
P1097 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	1.9	.0	2.3	.0
P1094 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID CAVITY CAP COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	1.9	.0	2.3	.0
P1097 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF RESONANT CAVITY COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	.0	2.3	.0
P1096 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNETIC COUPLING LOOP COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	.0	.0	.0
P1097 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	1.2	2.3	.0
P1098 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	1.8	2.3	.0
P1099 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF OUTPUT LEAD COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	1.8	2.3	.0
P1100 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF TRAVELLING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1101 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TRAVELLING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1102 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MODULATOR GRID COMPONENTS OF TRAVELLING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1103 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ANODE COMPONENTS OF TRAVELLING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1104 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX COMPONENTS OF TRAVELLING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0

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D TSK	TITLE	306 (M)	306 52 (M)	316 50F (M)	316 (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN IMA KC*
P1105	P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1106	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1107	P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1108	P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.0	.0	.0
P1109	P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.9	.0	.0
P1110	P3-67 DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.9	.0	.0
P1111	P3-68 DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.9	.0	.0
P1112	P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.9	.0	.0
P1113	P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	1.9	.0	.9	.0	.0
P1114	P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1115	P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1116	P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1117	P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1118	P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1119	P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1120	P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1121	Q1-1 DO YOU USE OR REFER TO STORAGE RESISTERS?	69.7	31.1	13.8	18.8	2.8	.0	.0	54.5	.0
P1122	Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?	77.3	34.8	.0	18.8	2.8	4.8	.0	56.8	.0
Q1123	Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS?	72.7	33.5	3.4	18.8	1.9	.0	.0	54.5	.0
P1124	Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS?	66.7	30.4	3.4	18.8	1.9	.0	.0	54.5	.0
P1125	Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTER CIRCUITS?	77.3	32.9	.0	18.8	.9	4.8	.9	54.5	.0
P1126	Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?	67.6	27.3	3.4	18.8	.9	.0	1.9	57.3	.0
P1127	Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED?	72.7	27.3	.0	17.9	1.9	.0	.9	50.0	.0
P1128	Q1-8 DO YOU KNOW THE ADDRESS DEVICES IN YOUR PRESENT JOB? IF YES, GO TO ITEM Q1-11; IF YES, CONTINUE.	71.2	26.7	31.1	25.0	16.4	.0	.9	55.4	.0
P1129	Q1-9 DO YOU KNOW HOW TO REFER TO RELAY LINES?	10.6	4.3	.0	.0	.9	.0	.0	17.9	.0

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NO TASK	TITLES	306 (H)	306 (H)	316 (H)	316 (H)	362 (H)	362 (H)	362 (H)	362 (H)	918 (H)	918 (H)	50 (H)	50 (H)	IMA *	IMA *
21130	Q2-3 DO YOU USE OR REFER TO MAGNETIC CORES OR ELMAGS?	54.5	5.0	2.4	0.0	1.9	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
21131	Q2-4 DO YOU USE OR REFER TO MAGNETIC DRUMS?	6.1	3.7	3.4	0.0	2.8	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
21132	Q2-5 DO YOU USE OR REFER TO MAGNETIC TAPES?	6.1	15.5	3.4	0.0	9.4	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0
21133	Q2-6 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OF MEMORY SYSTEMS?	47.0	8.7	3.4	6.3	2.8	0.0	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0
21134	Q2-7 DO YOU USE OR REFER TO STORAGE CAPACITY OF MEMORY SYSTEMS?	59.1	13.0	13.8	6.3	4.7	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0
21135	Q2-8 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS?	29.8	8.1	3.4	6.3	2.8	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0
21136	Q2-9 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES?	16.7	3.1	0.0	0.0	1.9	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0
21137	Q2-10 DO YOU USE OR REFER TO MAGNETIC DISKS?	6.1	3.7	0.0	18.8	1.9	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0
21138	Q2-11 DO YOU USE OR REFER TO THIN FILMS?	3.0	3.1	0.0	6.3	0.9	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0
21139	Q2-12 DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?	25.8	16.1	6.9	0.0	3.8	0.0	0.0	0.0	38.6	0.0	0.0	0.0	0.0	0.0
21140	Q2-13 DO YOU USE OR REFER TO BUBBLE MEMORIES?	0.0	2.5	3.4	6.3	1.9	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
21141	Q2-14 DO YOU USE OR REFER TO PUNCH CARDS?	59.1	5.6	3.4	0.0	0.9	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0
21142	Q2-15 DO YOU USE OR REFER TO PAPER TAPES?	60.1	19.9	31.3	18.8	2.8	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
21143	Q2-16 DO YOU USE OR REFER TO RANDOM ACCESS MEMORIES (RAM)?	45.5	18.0	17.2	6.3	5.7	0.0	0.0	0.0	36.4	0.0	0.0	0.0	0.0	0.0
21144	Q2-17 DO YOU USE OR REFER TO READ ONLY MEMORIES (ROM)?	13.6	18.6	10.3	6.3	4.7	0.0	0.0	0.0	34.1	0.0	0.0	0.0	0.0	0.0
21145	Q2-18 DO YOU USE OR REFER TO PROGRAMMABLE READ ONLY MEMORIES (PROM)?	7.6	10.6	3.4	12.5	2.8	0.0	0.0	0.0	36.4	0.0	0.0	0.0	0.0	0.0
21146	Q2-19 DO YOU USE OR REFER TO TRANSFORMER READ ONLY STORAGES (TROOS)?	0.0	3.1	0.0	0.0	0.9	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0
21147	Q2-20 DO YOU USE OR REFER TO CAPACITY READ ONLY STORAGES (CROS)?	0.0	2.5	0.0	0.0	0.9	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0
21148	Q2-21 DO YOU INSPECT STORAGE DEVICES?	56.1	22.4	13.8	18.8	8.5	0.0	0.0	0.0	34.1	0.0	0.0	0.0	0.0	0.0
21149	Q2-22 DO YOU CLEAN STORAGE DEVICES?	59.1	21.7	0.0	12.5	9.4	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0
21150	Q2-23 DO YOU ALIGN STORAGE DEVICES?	21.2	16.1	0.0	6.3	3.8	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0
21151	Q2-24 DO YOU ADJUST STORAGE DEVICES?	21.2	17.4	0.0	17.5	3.8	0.0	0.0	0.0	22.7	0.0	0.0	0.0	0.0	0.0
21152	Q2-25 DO YOU TROUBLESHOOT MEMORY SYSTEM STORAGE DEVICES?	48.5	19.3	20.7	6.3	5.7	0.0	0.0	0.0	31.8	0.0	0.0	0.0	0.0	0.0
21153	Q2-26 DO YOU REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS OF STORAGE DEVICES?	51.5	22.4	3.4	17.5	7.5	0.0	0.0	0.0	38.6	0.0	0.0	0.0	0.0	0.0
21154	Q2-27 DO YOU TRAC SIGNAL FLOW IN STORAGE DEVICES USING LOGIC DIAGRAMS OR SCHEMATICS?	51.5	18.6	3.4	0.0	1.9	0.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0	0.0
21155	Q2-28 DO YOU REPRESENT OR WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS OR ANALOG-TO-DIGITAL (A/D) CONVERTERS?	45.5	7.5	0.0	17.5	4.7	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0
21156	Q2-29 DO YOU GUARANTEE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES?	16.7	1.9	0.0	0.0	0.9	0.0	0.0	0.0	31.8	0.0	0.0	0.0	0.0	0.0
21157	Q2-30 DO YOU REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY DIVIDING THE DENOMINATORS OF THE RESISTORS?	9.1	1.2	0.0	0.0	0.9	0.0	0.0	0.0	22.7	0.0	0.0	0.0	0.0	0.0
21158	Q2-31 DO YOU CONVERT ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTROMECHANICAL-TO-ANALOG (E/A) CONVERTERS?	16.2	1.9	0.0	0.0	1.9	0.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0	0.0
21159	Q2-32 DO YOU CONVERT ANALOG VOLTAGES FOR GIVEN FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	7.6	1.9	0.0	0.0	1.9	0.0	0.0	0.0	38.6	0.0	0.0	0.0	0.0	0.0
21160	Q2-33 DO YOU REFER TO THE GENERAL RULE THAT THE COUNT IN ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS IS DETERMINED BY DIVIDING THE DENOMINATORS OF THE RESISTORS?	4.5	1.9	0.0	0.0	1.9	0.0	0.0	0.0	36.4	0.0	0.0	0.0	0.0	0.0

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Q1161 Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?
Q1162 Q3-8 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?
Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS BUT DON'T KNOW WHICH FUNCTION?
Q1164 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?
Q1165 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?
Q1166 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?
Q1167 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?
Q1168 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?
Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?
Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (D/A) CONVERTERS?
Q1171 Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?
Q1172 Q3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?
Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?
Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?
Q1175 Q3-21 WAS THE COMPUTER OR LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 7-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT DUTIES?
Q1176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A "NO" REPLY?
Q1177 Q1-1 DO YOU WORK WITH PHANTASTON CIRCUITS? IF NO, GO TO ITEM 42-16. IF YES, CONTINUE.
Q1178 Q1-2 PHANTASTON CIRCUITS HAS VARIABLE-DELAY APPLICATIONS IN MY JOB.
Q1179 Q1-3 PHANTASTON CIRCUITS HAS SEARCH-LOCK AUTOMATIC FREQUENCY DIVIDERS (AFD) APPLICATIONS IN MY JOB.
Q1180 Q1-4 PHANTASTON CIRCUITS HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.
Q1181 Q1-5 PHANTASTON CIRCUITS HAS BISTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.
Q1182 Q1-6 PHANTASTON CIRCUITS HAS FREE-RUNNING MULTIVIBRATORS APPLICATIONS IN MY JOB.
Q1183 Q2-1 IS YOUR ASSIGNMENT IN YOUR WORK WITH SCHMITT TRIGGER CIRCUITS IN MY JOB TO ITEM 42-1; IF YES, CONTINUE.

306 (M)	306 (M)	316 50F (M)	228 316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)	MIN TMA ACC
9.1	1.9	.0	.0	1.9	.0	.0	34.1	.0
7.0	1.9	.0	.0	1.9	.0	.0	36.4	.0
16.7	2.5	.0	6.3	.9	.0	.0	9.1	.0
9.1	1.9	.0	.0	.9	.0	.0	36.4	.0
4.5	1.9	.0	.0	.9	.0	.0	39.5	.0
10.6	1.9	.0	.0	.9	.0	.0	34.1	.0
12.4	1.9	.0	.0	.9	.0	.0	38.6	.0
4.5	1.9	.0	.0	1.9	.0	.0	27.3	.0
24.2	3.7	.0	.0	2.8	.0	.0	47.7	.0
24.2	4.3	.0	.0	2.8	.0	.0	45.5	.0
15.2	1.9	.0	12.5	3.9	.0	.0	20.5	.0
19.7	3.7	.0	12.5	3.8	.0	.0	13.2	.0
24.2	3.1	.0	6.3	2.8	.0	.0	12.2	.0
24.2	3.1	.0	6.3	1.9	.0	1.5	34.1	.0
25.9	3.1	.0	.0	.9	.0	.0	9.1	.0
.0	.6	.0	.0	.9	.0	.0	.0	.0
7.6	2.5	.0	.0	.9	.0	.0	2.3	.0
4.5	.6	.0	.0	1.9	.0	.0	4.5	.0
1.5	.6	.0	.0	1.9	.0	.0	4.5	.0
7.6	2.5	.0	.0	1.9	.0	.0	4.5	.0
7.6	2.5	.0	.0	1.9	.0	.0	4.5	.0
6.1	1.9	.0	.0	1.9	.0	.0	4.5	.0
57.6	42.2	.0	19.4	3.5	4.8	.0	42.2	.0

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D TASK	TITLES	306 (M)	316 50F (M)	316 52F (M)	362 (M)	362 (M)	362 (M)	362 (M)	51 (M)	51 (M)	54 (M)	918 50 (M)	MIN IMA %
R1184	R2-2 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS?	62.1	39.8	.0	12.5	3.8	4.8	.0	40.9	.0			.0
R1185	R2-3 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS?	62.1	35.4	.0	12.5	3.8	4.8	.0	40.9	.0			.0
R1186	R3-1 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES?	6.1	21.1	.0	54.3	21.7	4.8	37.7	34.1	.0			.0
R1187	R3-2 DO YOU FABRICATE COAXIAL CABLES?	7.6	18.6	.0	37.5	11.3	.0	5.3	40.9	.0			.0
S1191	S1-4 DO YOU USE OR REFER TO TAPE DRIVES (UNITS)?	37.0	44.7	24.1	31.3	13.2	.0	.0	25.0	.0			.0
S1192	S1-5 DO YOU USE OR REFER TO CARD READERS/CARD PUNCHES?	74.2	13.0	6.9	.0	4.7	.0	1.8	18.2	.0			.0
S1193	S1-6 DO YOU USE OR REFER TO VIDEO DISPLAYS (CRT'S)?	7.6	33.5	.0	31.3	18.9	4.8	.9	45.5	.0			.0
S1194	S1-7 DO YOU USE OR REFER TO X-RAY LIGHTS (TUBES)?	6.1	18.6	.0	6.3	.9	.0	.0	27.3	.0			.0
S1196	S1-9 DO YOU USE OR REFER TO LOG'S?	18.2	12.9	10.3	31.3	5.7	.0	.0	43.2	.0			.0
S1200	S1-13 DO YOU USE OR REFER TO TAPE REFORMERS?	63.3	65.2	48.3	37.5	3.8	.0	.0	18.2	.0			.0
S1201	S1-14 DO YOU USE OR REFER TO TAPE PUNCHES?	77.3	66.5	51.7	31.3	3.8	.0	.0	9.1	.0			.0
S1207	S2-1 DO YOU WORK WITH PHOTOLOGUE PHOTO SENSITIVE DEVICES?	60.6	13.0	.0	.0	1.9	.0	.0	79.5	.0			.0
S1213	S2-2 DO YOU WORK WITH PHOTOINTEGRATOR PHOTO SENSITIVE DEVICES?	36.4	10.6	.0	.0	1.9	.0	.0	54.5	.0			.0
S1244	S2-3 DO YOU WORK WITH PHOTOLOGUE PHOTO SENSITIVE DEVICES?	6.1	2.5	.0	.0	1.9	.0	.0	70.5	.0			.0
S1205	S2-4 DO YOU WORK WITH PHOTOLOGUE PHOTO SENSITIVE DEVICES?	7.6	3.1	.0	.0	1.9	.0	.0	22.7	.0			.0
S1206	S2-5 DO YOU WORK WITH PHOTOCELL (PHOTOCONDUCTIVE OR PHOTOVOLTAGE) PHOTO SENSITIVE DEVICES?	68.2	16.8	3.4	.0	1.9	.0	.0	70.5	.0			.0
S1207	S2-1 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS? IF NO, GO TO ITEM 11-1; IF YES, CONTINUE.	7.0	.6	3.4	.0	.9	.0	1.8	34.1	.0			.0
S1248	S3-2 DO YOU USE OR REFER TO EXCITATION FREQUENCY CHOPPER COIL ITEMS?	.0	.6	3.4	.0	1.9	.0	.0	20.5	.0			.0
S1249	S3-3 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIP CHOPPER COIL ITEMS?	.0	.6	3.4	.0	1.9	.0	.0	22.7	.0			.0
S1210	S3-4 DO YOU MEASURE EXCITATION FREQUENCY CHOPPER COIL ITEMS?	.0	.0	.0	.0	.0	.0	.0	18.2	.0			.0
S1211	S3-5 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIP CHOPPER COIL ITEMS?	.0	.0	.0	.0	.0	.0	.0	20.5	.0			.0
S1212	S3-6 DO YOU USE SLIDES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	.6	.0	.0	.0	.0	22.7	.0			.0
S1213	S3-7 DO YOU USE TELETYPE IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	3.4	.0	.0	.0	.0	22.7	.0			.0
S1214	S3-8 DO YOU USE EXTERIOR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.0	.0	.0	.0	.0	.0	25.0	.0			.0
S1215	S3-9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	3.4	.0	.0	.0	.0	27.3	.0			.0
T1216	T1-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS? IF NO, GO TO ITEM 12-1; IF YES, CONTINUE.	.0	.6	.0	.0	43.9	.9	.0	9.1	.0			.0
T1217	T1-2 DO YOU SELECT INFRARED SYSTEMS?	.0	.0	.0	.0	43.9	.0	.0	9.1	.0			.0
T1218	T1-3 DO YOU CLEAN INFRARED SYSTEMS?	.0	.0	.0	.0	43.9	.0	.0	9.1	.0			.0
T1219	T1-4 DO YOU SERVICE INFRARED SYSTEMS?	.0	.6	.0	.0	43.9	.9	.0	9.1	.0			.0
T1220	T1-5 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS?	.0	.6	.0	.0	43.9	.0	.0	9.1	.0			.0
T1221	T1-6 DO YOU OPERATE INFRARED SYSTEMS?	.0	.6	.0	.0	43.9	.0	.0	6.3	.0			.0
T1222	T1-7 DO YOU TRANSDUCER WIRE CONNECTIONS OF INFRARED SYSTEMS?	.0	.6	.0	.0	43.9	.0	.0	9.1	.0			.0

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D TASK

TITLES

T1223	T1-8 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	306	306	316	362	362	918	MIN
T1224	T1-9 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS?	51	52	50F	51	53	50	IMA
T1225	T1-10 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	1.5	.6	.0	.0	.0	.0	9.1
T1226	T1-11 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS?	.0	.6	.0	.0	.0	.0	.0
T1227	T1-12 DO YOU USE OR REFER TO FAR REGIONS?	.0	.0	.0	.9	.0	.0	.0
T1228	T1-13 DO YOU USE OR REFER TO INTERMEDIATE REGIONS?	1.5	.0	.0	.9	.0	.0	.0
T1229	T1-14 DO YOU USE OR REFER TO NEAR REGIONS?	1.5	.0	.0	.9	.0	.0	.0
T1230	T1-15 DO YOU USE OR REFER TO MICRONS (M)?	1.5	.0	.0	.0	.0	.0	.0
T1231	T1-16 DO YOU USE OR REFER TO GRAY BODIES?	1.5	.0	.0	.0	.0	.0	.0
T1232	T1-17 DO YOU USE OR REFER TO BLACK BODIES?	1.5	.0	.0	.0	.0	.0	.0
T1233	T1-18 DO YOU USE OR REFER TO ABSORPTION?	1.5	.0	.0	.0	.0	.0	.0
T1234	T1-19 DO YOU USE OR REFER TO SCATTERING?	1.5	.0	.0	.0	.0	.0	.0
T1235	T1-20 DO YOU USE OR REFER TO ABSOLUTE ZERO?	1.5	.0	.0	.0	.0	.0	.0
T1236	T1-21 DO YOU PERFORM TASKS ON PLITZ?	.0	.0	.0	.9	.0	.0	.0
T1237	T1-22 DO YOU PERFORM TASKS ON TARGET BUTTONS?	.0	.0	.0	.9	.0	.0	.0
T1238	T1-23 DO YOU PERFORM TASKS ON PRISM LENSES?	.0	.0	.0	.9	.0	.0	.0
T1239	T1-24 DO YOU PERFORM TASKS ON OCULAR LENSES?	.0	.0	.0	.9	.0	.0	.0
T1240	T1-25 DO YOU PERFORM TASKS ON CORRECTION LENSES?	.0	.0	.0	.9	.0	.0	.0
T1241	T1-26 DO YOU PERFORM TASKS ON FILTERS?	.0	.0	.0	.9	.0	.0	.0
T1242	T1-27 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS?	.0	.0	.0	.9	.0	.0	.0
T1243	T1-28 DO YOU PERFORM TASKS ON PLANE MIRRORS?	.0	.0	.0	.9	.0	.0	.0
T1244	T2-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS? IF NO, GO TO ITEM T3-1; IF YES, CONTINUE.	4.5	.0	.0	1.9	.0	.9	11.4
T1245	T2-2 DO YOU INSPECT LASER SYSTEMS?	3.0	.0	.0	.9	.0	.0	.0
T1246	T2-3 DO YOU CLEAN LASER SYSTEMS?	3.0	.0	.0	.9	.0	.0	.0
T1247	T2-4 DO YOU SERVICE LASER SYSTEMS?	3.0	.0	.0	.9	.0	.0	.0
T1248	T2-5 DO YOU OPERATE LASER SYSTEMS?	3.0	.0	.0	.9	.0	.0	.0
T1249	T2-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS?	2.0	.0	.0	.0	.0	.0	.0
T1250	T2-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS?	1.5	.0	.0	.0	.0	.0	.0
T1251	T2-8 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS?	1.5	.0	.0	.9	.0	.0	.0
T1252	T2-9 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS?	3.0	.0	.0	.9	.0	.0	.0
T1253	T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS?	1.5	.0	.0	.9	.0	.0	.0
T1254	T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)?	.0	.0	.0	.9	.0	.0	.0
T1255	T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS?	.0	.0	.0	1.9	.0	.0	.0
T1256	T2-13 DO YOU USE OR REFER TO GROUND STATE?	.0	.0	.0	1.9	.0	.0	.0
T1257	T2-14 DO YOU USE OR REFER TO EXCITED STATE?	.0	.0	.0	1.9	.0	.0	.0
T1258	T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION?	.0	.0	.0	1.9	.0	.0	.0
T1259	T2-16 DO YOU USE OR REFER TO PHOTONS?	.0	.0	.0	1.9	.0	.0	.0
T1260	T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSIONS?	.0	.0	.0	.9	.0	.0	.0
T1261	T2-18 DO YOU USE OR REFER TO STIMULATED EMISSIONS?	.0	.0	.0	.9	.0	.0	.0
T1262	T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE?	.0	.0	.0	.9	.0	.0	.0

PERCENT S-SKILL LEVEL MEMBERS PERFORMING

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O YSK	TITLES	306 (M)	316 50F (M)	326 (M)	362 51 (M)	362 53 (M)	362 54 (M)	91A 50 (M)	MIN IMA *C*
11263	12-20 DO YOU USE OR REFER TO INVERSION LEVELS?	.0	.0	.0	.9	.0	.0	4.5	.0
11264	12-21 DO YOU USE OR REFER TO MONOCHROMATIC?	.0	.0	.0	.0	.0	.0	4.5	.0
11265	12-22 DO YOU WORK WITH ACTIVE MATERIALS?	.0	.6	.0	1.9	.0	.0	2.3	.0
11266	12-23 DO YOU WORK WITH PUMPING SOURCES?	.0	.6	.0	1.9	.0	.0	4.5	.0
11267	12-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS?	1.5	.0	.0	1.9	.0	.0	4.5	.0
11268	12-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS?	1.5	.0	.0	1.9	.0	.0	4.5	.0
11269	12-26 DO YOU WORK WITH HELICAL FLASHTURES?	1.5	.6	.0	1.9	.0	.0	4.5	.0
11270	12-27 DO YOU WORK WITH RUBY MATERIALS?	.0	.0	.0	1.9	.0	.0	2.3	.0
11271	12-28 DO YOU WORK WITH HELIUM-NEON MATERIALS?	1.5	.0	.0	1.9	.0	.0	2.3	.0
11272	12-29 DO YOU WORK WITH HELIUM-XENON MATERIALS?	.0	.0	.0	1.9	.0	.0	2.3	.0
11273	12-30 DO YOU WORK WITH XENON MATERIALS?	.0	.0	.0	1.9	.0	.0	4.5	.0
11274	12-31 DO YOU WORK WITH CESIUM-HELIUM MATERIALS?	.0	.0	.0	1.9	.0	.0	.0	.0
11275	12-32 DO YOU WORK WITH ARGON MATERIALS?	.0	.0	.0	1.9	.0	.0	2.3	.0
11276	12-33 DO YOU WORK WITH NEODYMIUM IN GLASS MATERIALS?	.0	.0	.0	1.9	.0	.0	.0	.0
11277	12-34 DO YOU WORK WITH GALLIUM ARSENIDE MATERIALS?	.0	.0	.0	1.9	.0	.0	2.3	.0
11278	13-1 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS OBJECT VIEW STORAGE TUBES (OVST), MULTIPLE MODE STORAGE TUBES (MMST), OR SCAN CONVERTER TUBES (SCT)? IF NO, GO TO ITEM 14-1. IF YES, CONTINUE.	3.0	1.9	.0	2.8	.0	.9	6.9	.0
11279	13-2 DO YOU REPLACE ANY OF MMST?	1.5	1.2	.0	.9	.0	.0	6.8	.0
11280	13-3 DO YOU ADJUST OR CALIBRATE OVST OR MMST?	1.5	1.2	.0	.9	.0	.0	6.8	.0
11281	13-4 DO YOU OPERATE SYSTEMS THAT CONTAIN OVST OR MMST?	1.5	.6	.0	.0	.0	.0	4.5	.0
11282	13-5 DO YOU TECHNICALLY OVST OR MMST CIRCUITS?	1.5	.0	.0	.0	.0	.0	4.5	.0
11283	13-6 DO YOU REMOVE OR REPLACE OVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS?	1.5	1.2	.0	.0	.0	.0	4.5	.0
11284	13-7 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF OVST?	.0	.0	.0	.0	.0	.9	.0	.0
11285	13-8 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MMST?	.0	.0	.0	.0	.0	.9	.0	.0
11286	13-9 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MMST?	.0	.0	.0	.0	.0	.9	.0	.0
11287	13-10 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF SCT?	.0	.0	.0	.0	.0	.9	2.3	.0
11288	13-11 DO YOU PERFORM TASKS ON FLOOD GUNS?	.0	.0	.0	.9	.0	.0	.0	.0
11289	13-12 DO YOU PERFORM TASKS ON WRITE GUNS?	.0	.0	.0	1.9	.0	.0	.0	.0
11290	13-13 DO YOU PERFORM TASKS ON REAL GUNS?	.0	.0	.0	1.9	.0	.0	.0	.0
11291	13-14 DO YOU PERFORM TASKS ON ATTACK GUNS?	.0	.0	.0	1.9	.0	.0	.0	.0
11292	13-15 DO YOU PERFORM TASKS ON COAST GUNS?	.0	.0	.0	1.9	.0	.0	.0	.0
11293	13-16 DO YOU PERFORM TASKS ON DIRECT GUNS?	.0	.6	.0	1.9	.0	.0	2.3	.0
11294	14-1 DO YOU PRESENT JOB DO YOU PERFORM ANY TASKS DEALING WITH TELEVISION SYSTEMS INCLUDING LOW LIGHT TELEVISION? IF NO, GO TO ITEM 14-1. IF YES, CONTINUE.	.0	1.2	17.2	.9	.0	.0	39.5	.0
11295	14-2 DO YOU INSPECT TELEVISION SYSTEMS?	.0	1.2	10.3	.9	.0	.0	40.9	.0
11296	14-3 DO YOU CLEAN TELEVISION SYSTEMS?	.0	1.2	3.4	.9	.0	.0	39.5	.0
11297	14-4 DO YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?	.0	1.2	17.2	.9	.0	.0	39.5	.0
11298	14-5 DO YOU MAKE ELECTRICAL WIRE CONNECTIONS OF TV SYSTEMS?	.0	1.2	17.2	.9	.0	.0	39.5	.0
11299	14-6 DO YOU MAKE ELECTRICAL WIRE CONNECTIONS OF TV SYSTEMS?	.0	1.2	6.9	.9	.0	.0	40.9	.0

PERCENT 5-SKILL LEVEL MEMBERS PERFORMING

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D TSK	TITLE	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 (M)	362 (M)	362 (M)	51 (M)	54 (M)	918 50 (M)	MIN IMA *C*
U1300	T4-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF TV SYSTEMS?	.0	1.2	6.9	.0	.0	.0	.0	.9	.0	31.8	.0
U1301	T4-3 DO YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENT PARTS?	.0	1.2	3.4	.0	.0	.0	.0	.9	.0	29.5	.0
U1302	T4-9 DO YOU REMOVE OR REPLACE TV SYSTEM MAJOR ASSEMBLIES?	.0	.6	.0	.0	.0	.0	.0	.9	.0	31.8	.0
U1303	T4-10 DO YOU REMOVE OR REPLACE TV SYSTEM COMPONENT PARTS?	.0	.6	.0	.0	.0	.0	.0	.9	.0	29.5	.0
U1304	U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF YES, CONTINUE.	34.8	5.6	20.7	31.3	9.4	.0	2.6	.0	.0	29.5	.0
U1305	U1-2 DO YOU USE OR REFER TO DECIMAL SYSTEMS?	21.2	1.9	10.3	6.3	4.7	.0	.0	.0	.0	25.0	.0
U1306	U1-3 DO YOU USE OR REFER TO OCTAL SYSTEMS?	18.2	.0	17.2	.0	3.6	.0	.0	.0	.0	22.7	.0
U1307	U1-4 DO YOU USE OR REFER TO PARSITY DETECTORS/GENERATORS?	28.8	4.3	3.4	.0	3.8	.0	.0	.0	.0	15.9	.0
U1308	U1-5 DO YOU USE OR REFER TO HEXADECIMAL SYSTEMS?	13.6	1.2	.0	25.0	3.8	.0	.0	.0	.0	25.0	.0
U1309	U1-6 DO YOU USE OR REFER TO 2-4-2-1 SYSTEMS?	.0	.6	6.9	.0	2.8	.0	.0	.0	.0	11.4	.0
U1310	U1-7 DO YOU USE OR REFER TO FOUR SYSTEMS?	6.1	.0	.0	.0	.9	.0	.0	.0	.0	11.4	.0
U1311	U1-8 DO YOU USE OR REFER TO BINARY SYSTEMS?	34.8	3.7	13.8	17.5	5.7	.0	.0	.0	.0	27.3	.0
U1312	U1-9 DO YOU USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)?	.0	1.2	.0	.0	2.8	.0	.9	.0	.0	15.9	.0
U1313	U1-10 DO YOU USE OR REFER TO DATA WORDS?	22.7	4.3	6.9	12.5	5.7	.0	.0	.0	.0	15.9	.0
U1314	U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?	16.7	4.3	3.4	12.5	7.5	.0	.0	.0	.0	15.9	.0
U1315	U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?	19.7	3.1	3.4	12.5	6.6	.0	.0	.0	.0	13.6	.0
U1316	U1-13 DO YOU USE OR REFER TO STEERING/INFORMATION?	12.1	2.5	6.9	6.3	2.8	.0	.0	.0	.0	11.4	.0
U1317	U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?	10.6	3.1	6.9	6.3	6.6	.0	.0	.0	.0	15.9	.0
U1318	U1-15 DO YOU USE OR REFER TO JAB-16?	.0	.0	.0	.0	.9	.0	.0	.0	.0	6.8	.0
U1319	U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	16.7	1.9	13.3	6.3	2.8	.0	.0	.0	.0	22.7	.0
U1320	U1-17 DO YOU USE OR REFER TO CONTROL WORDS?	.0	4.3	.0	18.8	4.7	.0	.0	.0	.0	13.6	.0
U1321	U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?	7.6	2.5	.0	25.0	3.8	.0	.0	.0	.0	9.1	.0
U1322	U1-19 DO YOU USE OR REFER TO 42PARAWORD WORDS?	.0	1.2	.0	.0	1.9	.0	.0	.0	.0	6.8	.0
U1323	U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?	18.2	3.1	6.9	25.0	7.5	.0	.9	.0	.0	22.7	.0
U1324	U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?	6.1	.6	3.4	18.8	.9	.0	.0	.0	.0	11.4	.0
U1325	U1-22 DO YOU USE OR REFER TO COMPILERS?	.0	.0	.0	.0	.9	.0	.0	.0	.0	9.1	.0
U1326	U1-23 DO YOU USE OR REFER TO ASSEMBLERS?	.0	.0	.0	.0	.9	.0	.0	.0	.0	9.1	.0
U1327	U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?	4.5	1.2	.0	6.3	4.7	.0	.0	.0	.0	15.9	.0
U1328	U1-25 DO YOU USE OR REFER TO MECHANICS?	18.2	1.2	.0	6.3	4.7	.0	.9	.0	.0	11.4	.0
U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	17.6	1.2	3.4	.0	5.7	.0	.9	.0	.0	13.6	.0
U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	12.1	3.1	10.3	12.5	4.7	.0	.9	.0	.0	18.2	.0
U1331	U1-28 DO YOU USE OR REFER TO 'ATLAS'?	.0	.0	.0	.0	.9	.0	.0	.0	.0	4.5	.0
U1332	U1-29 DO YOU USE OR REFER TO 'PLAN'?	.0	.0	.0	.0	.9	.0	.0	.0	.0	4.5	.0
U1333	U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?	4.5	.0	.0	.0	1.9	.0	.9	.0	.0	11.4	.0
U1334	U1-31 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING SYSTEMS?	.0	.6	3.4	.0	2.8	.0	.9	.0	.0	6.8	.0
U1335	U1-32 DO YOU WRITE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	.0	.0	.0	.0	2.8	.0	.9	.0	.0	.0	.0
U1336	U1-33 DO YOU USE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	3.0	1.9	6.9	25.0	6.6	.0	1.8	.0	.0	18.2	.0
U1337	U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER CONTROL SECTIONS?	27.7	2.5	6.9	6.3	5.7	.0	.0	.0	.0	22.7	.0
U1338	U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT SECTIONS?	28.8	3.1	10.3	6.3	7.5	.0	.9	.0	.0	20.5	.0

PERCENT S-SKILL LEVEL NUMBERS PERFORMING

O TSM TITLE

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306	306	316	316	362	362	362	362	918	MIN
51	52	SFF	SFF	51	53	54	50	IMA	IMA
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
30.3	3.1	10.2	6.3	6.6	.0	.9	20.5	.0	.0
25.8	2.5	10.2	6.3	4.7	.0	.9	18.2	.0	.0
30.3	4.3	3.4	6.3	3.8	.0	.0	15.9	.0	.0
28.8	5.0	3.4	6.3	3.8	.0	.0	13.6	.0	.0
30.3	3.7	6.9	6.3	7.5	.0	.0	25.0	.0	.0
24.2	3.7	6.9	6.3	6.6	.0	.0	25.0	.0	.0
30.3	3.7	6.9	6.3	6.6	.0	.0	25.0	.0	.0
25.8	3.7	3.4	6.3	5.7	.0	.0	25.0	.0	.0
28.8	3.7	6.9	6.3	4.7	.0	.0	22.7	.0	.0
.0	.0	.0	.0	.9	.0	.9	2.3	.0	.0
.0	.0	.0	.0	.9	.0	.9	4.5	.0	.0
.0	.0	.0	.0	.9	.0	.9	2.3	.0	.0
6.1	2.5	3.4	.0	3.8	4.8	1.8	22.7	.0	.0
4.5	1.9	.0	.0	1.9	.0	.0	22.7	.0	.0
3.0	1.9	.0	.0	1.9	.0	.0	22.7	.0	.0
3.0	4.3	3.4	.0	3.8	.0	.0	29.5	.0	.0
3.0	3.7	.0	.0	3.8	.0	.0	29.5	.0	.0
1.5	.6	.0	.0	.9	.0	.0	22.7	.0	.0
7.6	3.1	3.4	.0	3.8	.0	.0	27.3	.0	.0
4.5	1.9	.0	.0	1.9	.0	.9	20.5	.0	.0
6.1	1.0	.0	.0	3.8	.0	.9	20.5	.0	.0
6.1	1.9	.0	.0	2.8	4.6	.0	22.7	.0	.0
15.2	9.9	.0	.0	47.2	71.4	15.8	38.6	.0	.0
4.5	2.5	.0	.0	6.6	.0	.0	11.4	.0	.0
3.0	2.5	.0	.0	5.7	.0	.9	11.4	.0	.0

U1329 U1-36 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT SECTIONS?

U1330 U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR SECTIONS?

U1341 U1-38 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTIONS?

U1342 U1-39 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTIONS?

U1343 U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT DEVICES?

U1344 U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE DEVICES?

U1345 U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT DEVICES?

U1346 U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?

U1347 U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR DEVICES?

U1348 U1-45 DO YOU USE FORTEAN PROGRAMMING LANGUAGE?

U1349 U1-46 DO YOU USE COOL PROGRAMMING LANGUAGE?

U1350 U1-47 DO YOU USE HPG PROGRAMMING LANGUAGE?

U1351 U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?

U1352 U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1353 U1-50 DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1354 U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OF DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1355 U1-52 DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1356 U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1357 U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1358 U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1359 U1-56 DO YOU USE BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1360 U1-57 DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1361 U2-1 DO YOU USE DEVICES TO EXPRESS AMPLIFICATION AND ATTENUATION?

U1362 U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DEVICES?

U1363 U2-3 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DEVICES?

DATE RECORDED 5/24/77 BY SP-5 JAC/STP

OCCUPATIONAL ANALYSIS PROGRAM
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15X
TITLES

U1364 U2-4 DO YOU USE VTVM (VOLT METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?

SIGNAL LEVEL?

WILLIE 02-5 DO YOU USE VTA4 (100 WATERS) TO CHECK OR ADJUST AUDIO AMPLIFIERS?

AMPI 7517852

U1366 U2-6 DO YOU USE A HP355 J CP 344A TEST SET TO ALIGN AUDIO
AMPLIFIERS?
EQUIPMENT?

APPENDIX

306 51 (A)

(2)

(2)

21.3

14.7

7.6

POI MATCHED WITH SURVEY DATA

POI USAFOMC 003, ELECTRONIC PRINCIPLES (DATED 31 MARCH 1983),
IS PRESENTED BELOW WITH MATCHED JOB INVENTORY TASKS AND OCCUPATIONAL SURVEY
DATA.

USE OF POI FACT-PRINTOUTS: POI OBJECTIVES ARE LISTED BETWEEN THE DOTTED
LINES, WITH MATCHED TASKS LISTED AFTER AND SURVEY DATA PRINTED TO THE RIGHT OF
EACH TASK. TRAINING OBJECTIVES CAN BE COMPARED WITH THE PERCENT PERFORMING
(SEE AFTER 52-20 FOR CRITERIA). PERFORMANCE OBJECTIVES WHICH ARE NOT WELL
SUPPORTED CAN BE CONSIDERED FOR REPLACEMENT WITH OBJECTIVES INVOLVING
TASKS PERFORMED BY HIGHER PERCENTAGES OF INCUMBENTS AND RATED HIGHER IN
TRAINING EMPHASIS AND TASK DIFFICULTY. IN ADDITION, TASKS WHICH WERE NOT
MATCHED WITH POI OBJECTIVES ARE LISTED IN THE "TASKS NOT REFERENCED" SECTION
IN DESCENDING ORDER OF FIRST-TERM TRAINING EMPHASIS/PERCENT OF EPI PERSONNEL
PERFORMING. THESE TASKS CAN BE USED TO IDENTIFY TASKS WHICH MAY WARRANT
TRAINING AND WHICH CAN BE INCLUDED IN FUTURE POI'S. FOR ASSISTANCE PHONE
USAFOMC/CMYO AT AUTOVON 487-5811.

VECTOR TYPE CODES:

- (T) = 2 TIME SPENT BY ALL MEMBERS
- (N) = 2 MEMBERS PERFORMING
- (F) = TASK FACTOR
- (C) = CICHOTOMOUS SET
- (B) = 2 TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	MEAN	MEMBERS/ SC	DESCRIPTION	FACTOR	N
1	M	306 51	46		DAFSC 30651 AIRMEN	2	
2	M	306 52	161		DAFSC 30652 AIRMEN	4	
3	M	31650F	79		DAFSC 31650F AIRMEN	6	
4	M	31652F	10		DAFSC 31652F AIRMEN	8	
5	M	362 51	170		DAFSC 36251 AIRMEN	10	
6	M	362 53	71		DAFSC 36253 AIRMEN	12	
7	M	362 54	144		DAFSC 36254 AIRMEN	14	
8	M	918 50	44		DAFSC 91850 AIRMEN	16	

POT MATCHED WITH SURVEY DATA

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OCCUPATIONAL ANALYSIS PROGRAM
USAF OMC (ATC) RANDOLPH AFB TX

D TSK TITLES

306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
AMA (M) (M) (M) (M) (M)

007 I 20. FROM A LIST OF FOUR FIVE EXTINGUISHER TYPES, SELECT THE ONE USED ON ELECTRICAL FIRES. MEAS: PC 0.2/0

008 I 3. ELECTRONIC MATHEMATICS 10/4

009 I 3A. USE ARITHMETIC PROCEDURES, (1) ADDITION, (2) SUBTRACTION, (3) MULTIPLICATION, AND (4) DIVISION, TO SOLVE PROBLEMS WITH AT LEAST 90% ACCURACY. MEAS: PC 2/0

010 I 3B. GIVEN A LIST OF MATHEMATICAL TERMS AND SYMBOLS MATCH THEM WITH THEIR DEFINITIONS WITH AT LEAST 60% ACCURACY. MEAS: PC 0/1.5

011 I 3C. GIVEN NUMBERS WITH EXPONENTIAL COMPONENTS, DETERMINE EQUIVALENT VALUES AND SELECT THE BEST RESPONSE WITH AT LEAST 80% ACCURACY. MEAS: PC 1/0

A 11 A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10? 31.8 13.0 6.9 37.5 12.3 9.5 3.5 54.5
A 4 A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY? 7.6 6.2 .0 12.5 7.5 .0 3.5 36.4

012 I 7A. GIVE NUMERICAL VALUES, CONVERT TO POWERS OF TEN, AND SELECT THE CORRECT PREFIXES AND SELECTED METRIC PREFIXES AND CONVERSIONS WITH AT LEAST 60% ACCURACY. MEAS: PC 3/0

A 11 A1-11 DO YOU USE NOTATIONS, SUCH AS TECHNICAL ORDERS OR NOTATIONS, IN WHICH IT IS NECESSARY FOR YOU TO WRITE A POWER OF 10 BEFORE YOU CAN APPLY THE EQUATION TO A SITUATION IN A CORRECT WAY OR THE WAY?

33.3 32.3 27.0 68.2 34.9 47.6 31.1 70.5

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FOR MATCHED WITH SURVEY DATA

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0 YSM TITLE

306	306	316	362	362	362	918
51	52	50F	51	53	54	50
#R#	(M)	(M)	(M)	(M)	(M)	(M)

022 I 5A. GIVEN A MULTIMETER AND FIVE RESISTORS, USE THE MULTIMETER TO DETERMINE THE OHMIC VALUE, WITHIN TOLERANCE, FOR AT LEAST FOUR RESISTORS. MEAS: PC 2/0

A 28 A3-5 DO YOU MEASURE RESISTORS?
B 60 B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?

A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

N 813 N1-5 DO YOU READ METEER SCALES?
N 816 N1-8 DO YOU READ OHMMETERS?

D 217 D1-3F DO YOU CHECK RESISTORS USING OHMMETERS?

023 I 5B. GIVEN THE APPROPRIATE STUDY MATERIAL, COMPLETE WORK ASSIGNMENTS IN THE FAMILIARIZATION AND OPERATIONAL USAGE OF DIGITAL MULTIMETERS WITH AT LEAST 60% ACCURACY. MEAS: PC 0/2

A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

024 I 5C. GIVEN A CIRCUIT VOLTAGE VALUE AND A PICTURE OF A MULTIMETER FACE PANEL OF THE MULTIMETER, SELECT THE PROPER FUNCTIONS, RANGE SETTING, AND SCALE TO BE USED FOR MEASURING THE VOLTAGE CORRECTLY WITH AT LEAST 60% ACCURACY. MEAS: PC 2.5/0

A 1 A1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?

A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

N 813 N1-5 DO YOU READ METEER SCALES?

N 816 N1-8 DO YOU READ OHMMETERS?
(EXPRESS IN UNITS OF OHMS PER VOLT)?

81.6	80.7	13.0	81.3	56.0	33.3	97.7
81.8	88.2	82.8	87.5	90.6	74.6	100.0

69.7	73.9	65.5	81.7	69.8	48.2	97.7
------	------	------	------	------	------	------

68.2	76.4	86.2	75.0	66.0	59.6	88.6
66.7	75.2	72.4	81.3	67.9	60.5	84.1
37.0	27.3	.0	25.0	12.3	7.9	77.3

69.7	73.9	65.5	81.3	69.8	48.2	97.7
------	------	------	------	------	------	------

66.4	91.3	93.1	87.5	90.6	80.7	100.0
------	------	------	------	------	------	-------

69.7	73.9	65.5	81.3	69.8	48.2	97.7
------	------	------	------	------	------	------

68.2	76.4	86.2	75.0	66.0	59.6	88.6
37.3	36.0	24.1	50.0	22.6	18.4	54.5

POI MATCHED WITH SUPPLY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (AIC) RANDOLPH AFB TX

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204	306	316	316	362	362	362	918
51	52	50F	51	53	54	50	
MM	(P)	(W)	(M)	(M)	(M)	(M)	(M)

TITLES

1. 50. LEAVE A CIRCUIT CURRENT VALUE AND A MULTIMETER FACE
PANEL OF THE MULTIMETER, SELECT THE PROPER FUNCTION, RANGE
SETTINGS, AND SCALE TO BE USED FOR MEASURING THE CURRENT
WITH AT LEAST FOR ACCURACY. MEAS: PC 1/0

2. 61-63 DO YOU USE MULTIMETERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE CURRENT?

1. 61-63 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS
METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO
AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY
POWERS OF 10?

2. 61-63 DO YOU READ METRIC SCALES?

3. 61-63 RESISTIVE CIRCUITS

8/2

1. 64. GIVE APPLICABLE FORMULAS AND A SCHEMATIC DIAGRAM FOR
A THREE RESISTOR SERIES CIRCUIT SHOWING APPLIED VOLTAGE
AND COMPONENT VALUES, SOLVE FOR TOTAL RESISTANCE, CURRENT,
VOLTAGE AND POWER, AND INDIVIDUAL VOLTAGE AND POWER DROPS,
CORRECTLY, AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 5/0

2. 65-67 DO YOU USE FORMULAS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM WATTAGE?

3. 68-70 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR SERIES RESISTIVE CIRCUITS?

4. 71-73 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES RESISTIVE CIRCUITS?

5. 74-76 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
SERIES RESISTIVE CIRCUITS?

6. 77-79 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

7. 80-82 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES RESISTIVE CIRCUITS?

8. 83-85 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES
RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

9. 86-88 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?

10. 89-91 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

60.6	73.9	89.7	81.7	60.4	66.7	60.9	97.7
59.1	54.7	13.8	56.3	53.8	61.9	53.7	87.7
56.1	56.5	13.8	56.7	45.3	42.9	57.7	66.3
57.0	54.7	10.3	56.3	50.9	42.9	57.7	66.3
45.5	44.7	10.3	57.5	42.5	47.3	57.7	66.3
40.9	41.0	13.8	57.5	43.0	47.3	57.7	66.3
39.4	42.2	10.7	57.5	41.5	47.3	57.7	66.3
37.9	42.9	6.0	57.5	36.7	47.3	57.7	66.3
25.2	30.4	6.9	31.3	20.1	34.3	31.3	31.3

POI MATCHED WITH SURVEY DATA

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706	306	316	316	362	362	362	918
51	52	52F	52F	51	53	54	50
WIA	(M)	(M)	(M)	(M)	(M)	(M)	(M)

Q TSK TITLES

731 I 9A. GIVE APPLICABLE FORMULAS AND A SCHEMATIC DIAGRAM FOR
A THREE RESISTOR PARALLEL CIRCUIT, SHOWING APPLIED VOLTAGE
AND COMPONENT VALUES, SOLVE FOR TOTAL RESISTANCE, TOTAL
CURRENT, TOTAL POWER, BRANCH CURRENT, AND POWER DROPS,
CORRECTLY, AT LEAST TWO OUT OF THREE TIMES FOR EACH
VARIABLE. *EASE PC

4/0

A 23 A2-12 DO YOU USE (REPEATS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM VATTAGE?
A 24 A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
A 51 A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
PARALLEL RESISTIVE CIRCUITS?
A 52 A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
A 53 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?
A 53 A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES
RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?
A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 54 A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

Q72 I 9B. USING THE THREE RESISTOR PARALLEL CIRCUIT CONNECTED
IN A TRIANGLE, VERIFY THE PREVIOUSLY CALCULATED VALUES OF
VOLTAGE, CURRENT AND RESISTANCE WITH A MULTIMETER WITHIN
+ .05 - 1% ACCURACY. *EASE PC

2/0

A 25 A3-25 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
A 51 A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
PARALLEL RESISTIVE CIRCUITS?
A 52 A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?

60.6	73.9	89.7	81.3	60.4	66.7	43.9	97.7
52.0	51.6	13.8	37.5	46.2	57.1	20.2	61.8
48.5	52.8	10.3	37.5	46.2	42.9	21.9	64.1
45.5	52.8	10.3	37.5	39.6	32.1	17.5	68.6
45.5	44.7	10.7	37.5	42.5	47.6	16.7	79.5
39.4	45.3	6.9	31.3	36.8	28.6	15.3	66.4
39.4	42.2	10.3	37.5	41.5	23.6	16.7	61.8
37.9	42.9	6.9	37.5	38.7	23.6	13.2	68.6
34.8	27.3	10.3	31.7	22.1	16.0	9.6	70.5
31.9	36.6	6.9	37.5	24.9	19.0	12.3	61.8
25.8	30.4	6.9	31.3	30.2	14.3	7.2	70.5
61.8	60.7	13.8	81.3	46.0	66.7	23.3	97.7
52.0	51.6	13.8	37.5	46.2	57.1	20.2	61.8
48.5	52.8	10.3	37.5	46.2	42.9	21.9	64.1
45.5	52.8	10.3	37.5	39.6	32.1	17.5	68.6

POI MATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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DTSP TITLES

A 55	A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	306	306	316	316	362	362	362	918
A 53	A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	51	52	50F	52F	51	53	54	50
A 56	A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	45.5	44.7	10.3	37.5	42.5	47.6	16.7	79.5
A 57	A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	30.4	45.3	6.9	31.3	36.8	28.6	15.9	86.4
A 54	A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	30.4	42.2	10.3	37.5	41.5	23.8	16.7	81.8
A 58	A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	37.0	42.9	6.9	37.5	38.7	23.8	13.2	98.6
A 59	A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?	34.8	37.3	10.3	31.3	32.1	19.0	9.6	70.5
		31.8	36.6	6.9	37.5	34.9	19.0	12.3	81.8
		25.8	30.4	6.9	31.3	35.2	14.3	7.9	70.5

033 I 90. GIVEN SCHEMATIC DIAGRAMS OF FOUR BRIDGE CIRCUITS, NECESSARY CIRCUIT VALUES AND FORMULAS, DETERMINE WHETHER EACH CIRCUIT IS BALANCED OR UNBALANCED. AT LEAST THREE OUT OF FOUR CORRECT IS REQUIRED. MEAS: PC 0/2

034 I 90. USING A MULTIMETER, FORMULAS, SCHEMATIC DIAGRAM AND A TRAINER HAVING AN OPEN OR SHORTED COMPONENT IN A PARALLEL RESISTIVE CIRCUIT, LOCATE THE FAULTY COMPONENT AT LEAST THREE OUT OF FOUR TIMES CORRECTLY. MEAS: PC 2/0

A 29	A3-5 DO YOU MEASURE RESISTOR?	81.8	80.7	13.8	81.3	66.0	85.7	73.3	97.7
A 50	A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	57.0	51.6	13.8	37.5	46.2	57.1	20.2	81.8
A 51	A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	48.5	52.8	10.3	37.5	46.2	42.9	11.9	84.1
A 52	A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	45.5	52.8	10.3	37.5	39.6	38.1	17.5	88.6
A 53	A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	39.4	45.3	6.9	31.3	36.8	28.6	15.8	86.4
A 54	A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?	34.8	37.3	10.3	31.3	32.1	19.0	9.6	70.5

0 TSM TITLES

706 306 316 316 362 362 362 910
51 52 50F 52F 51 53 54 50
#P# (M) (M) (M) (M) (M) (M)

036 I 10. SERIES-PARALLEL RESISTIVE CIRCUITS 10/2

036 I 10A. GIVE, APPLICABLE FORMULAS AND A SCHEMATIC DIAGRAM OF A THREE RESISTOR SERIES-PARALLEL CIRCUIT SHOWING APPLIED VOLTAGE AND COMPONENT VALUES, SOLVE FOR TOTAL RESISTANCE, TOTAL CURRENT, TOTAL POWER, VOLTAGE ACROSS EACH RESISTOR AND BRANCH CURRENTS ACCURATELY AT LEAST THREE OUT OF FOUR TIMES. MEAS: PC 2/0

- A 23 A2-12 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OF ELSEWHERE) THE TERM WATTAGE?
- A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 47 A3-27 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 55 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
- A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
- A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
- A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
- A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?

60.6 73.9 89.7 81.3 60.4 66.7 43.9 97.7
51.5 52.8 13.8 37.5 49.1 61.9 26.3 84.1
47.0 54.0 10.3 47.8 48.1 47.6 27.2 86.4
47.0 56.5 13.8 37.5 41.5 42.9 20.2 95.5
45.5 44.7 10.3 37.5 42.5 47.6 16.7 79.5
42.4 47.2 6.9 31.3 35.8 33.3 19.3 88.6
39.4 42.2 10.3 37.5 41.5 23.8 16.7 81.8
37.0 41.0 10.3 31.3 31.1 23.8 10.5 72.7
37.0 42.9 6.9 37.5 38.7 23.8 13.2 88.6
31.8 36.6 6.9 37.5 34.9 19.0 12.3 81.8
25.8 30.4 6.9 31.3 30.2 14.3 7.9 70.5
81.8 80.7 13.5 81.3 66.0 85.7 73.7 97.7

037 I 10A. GIVE, APPLICABLE FORMULAS AND A SCHEMATIC DIAGRAM OF A THREE RESISTOR SERIES-PARALLEL RESISTIVE CIRCUIT, VERIFY WITHIN 10 PERCENT ACCURACY THE PREVIOUSLY CALCULATED VALUES OF TOTAL RESISTANCE, TOTAL CURRENT AND INDIVIDUAL VOLTAGE, CURRENT AND POWER.

A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?

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A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 47 A3-23 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 55 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?
A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL RESISTIVE CIRCUITS?

038 I 10C. USING A MULTIMETER AND A TRAINER WITH A LOADED VOLTAGE DIVIDER, DETERMINE THE CHANGES IN VOLTAGE AT TWO TAPS WITH RESPECT TO GROUND REFERENCE POINT WHEN THE LOAD IS CHANGED, CORRECTLY AT LEAST TWO OUT OF THREE TIMES FOR EACH VARIABLE. MEAS: PC 3/C

039 I 10D. USING A MULTIMETER, APPLICABLE FORMULAS, A SCHEMATIC DIAGRAM AND A TRAINER HAVING AN OPEN OR SHORTED COMPONENT IN A SERIES-PARALLEL RESISTIVE CIRCUIT, LOCATE THE FAULTY COMPONENT ACCURATELY AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 3/D

A 20 A3-5 DO YOU MEASURE RESISTORS?
A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?

306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
M M M M M M M

51.5 52.8 13.6 37.5 49.1 61.9 26.3 84.1
47.0 54.0 10.3 43.8 48.1 47.6 27.2 86.4
47.0 56.5 13.8 37.5 41.5 42.9 20.2 95.5
45.5 44.7 10.3 37.5 42.5 47.6 16.7 79.5
42.4 47.2 6.9 31.3 35.8 33.3 19.3 88.6
39.4 42.2 10.3 37.5 41.5 23.8 16.7 81.8
37.9 41.0 10.3 31.3 31.1 23.8 10.5 72.7
37.9 42.9 6.9 37.5 38.7 23.8 13.2 88.5
31.8 36.6 6.9 37.5 34.9 19.0 12.3 81.8
25.8 30.4 6.9 31.3 30.2 14.3 7.9 70.5

81.8 80.7 13.8 81.3 56.0 85.7 33.3 97.7
51.5 52.8 13.8 37.5 49.1 61.9 26.3 84.1
47.0 54.0 10.3 43.8 48.1 47.6 27.2 86.4

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D TSK TITLES

A 47 A3-27 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES PARALLEL RESISTIVE CIRCUITS?

040 I 11. MAGNETISM AND RELAYS 1.5/2

041 I 11A. GIVEN A DRAWING OF AN ELECTROMAGNET SUSPENDED
BETWEEN THE POLES OF A PERMANENT MAGNET, DETERMINE THE
DIRECTION OF MOTION OF THE ELECTROMAGNET WHEN CURRENT FLOWS
THROUGH ITS WINDINGS. MEAS: PC 0/2

C 169 C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?
C 168 C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?
C 177 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION?
C 174 C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR
FLUX?
C 171 C3-4 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC
MATERIALS?
C 173 C3-5 DO YOU USE OR REFER TO RESIDUAL MAGNETISM?
C 172 C3-5 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC
MATERIALS?
C 170 C3-3 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC
MATERIALS?
C 172 C3-11 DO YOU USE OR REFER TO FLUX DENSITY?
C 175 C3-8 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?
C 176 C3-9 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?

042 I 11B. GIVEN A RELAY TRAINER AND A SCHEMATIC DIAGRAM,
VERIFY WHICH CONTACTS WILL BE OPEN AND WHICH WILL BE
CLOSED WHEN POWER IS APPLIED AND WHEN POWER IS OFF.
ACCURACY WITHIN + OR - 10% IS REQUIRED. MEAS: PC 1.5/0

F 246 C3-17 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW
(SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?
F 240 C3-16 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW
(SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?
F 242 C3-15 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW
(DPDT) SCHEMATIC SYMBOLS FOR RELAYS?
F 240 C3-14 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?

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POI MATCHED WITH SURVEY DATA

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306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
AMP	(M)	(M)	(M)	(M)	(M)	(M)	(M)

E 291 E3-15 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?

50.6	33.5	48.3	81.3	50.0	42.9	46.5	88.6
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043 II. AC CIRCUITS

76 HRS TT

044 II 1. AC TERMS AND VALUES

4/6

045 II 1A. GIVEN A WAVEFORM THAT REPRESENTS ALTERNATING CURRENT OR VOLTAGE AND A LIST OF TEN TERMS AND VALUES, LABEL THE WAVEFORM WITH THE TERM OR VALUE IN THE APPROPRIATE SPACE PROVIDED ON THE WAVEFORM WITH AT LEAST 80% ACCURACY.
MEAS: PC 4/0

5 69 B2-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?
8 72 B2-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM FREQUENCY IN YOUR PRESENT JOB?
9 71 B2-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM WAVE LENGTH IN YOUR PRESENT JOB?
9 70 B2-3 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM AVERAGE VOLTAGE (DC) IN YOUR PRESENT JOB?
9 68 B2-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?
8 73 B2-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?
A 9 A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?

80.3	68.9	13.8	81.3	30.2	76.2	14.9	93.2
72.7	59.6	51.7	68.8	63.2	90.5	20.2	93.2
53.0	46.0	13.8	75.0	36.8	47.6	7.9	81.8
51.5	62.1	31.0	75.0	43.4	57.1	29.9	86.4
45.5	47.8	20.7	37.5	26.4	52.4	16.7	90.9
12.1	13.7	3.4	18.8	10.4	.0	.9	52.3
7.6	4.3	.0	6.3	2.2	4.8	1.8	15.9

046 II 1B. GIVEN A PICTORIAL DIAGRAM OF AN AC AND A DC GENERATOR, MATCH THE MAJOR PARTS WITH THEIR FUNCTIONS, WITH AT LEAST 60% ACCURACY. MEAS: PC

M 789 M3-12 DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?
M 787 M3-10 DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?
M 788 M3-11 DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?
M 796 M3-9 DO YOU PERFORM TASKS ON MOTOR FIELD COILS?
M 790 M3-13 DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?
M 791 M3-14 DO YOU PERFORM ANY TASKS ON MOTOR COMMUTATORS?
M 792 M3-15 DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?

34.8	68.9	3.4	.0	10.4	.0	.0	86.4
28.8	66.5	3.4	.0	5.7	.0	.0	75.0
24.2	51.6	3.4	.0	4.7	.0	.0	63.6
19.7	52.2	.0	6.3	2.2	.0	.0	59.1
10.7	49.7	3.4	.0	5.7	.0	.0	45.5
12.1	48.4	3.4	.0	6.6	.0	.0	52.3
12.1	39.8	3.4	6.3	4.7	.0	.0	34.1

Q TSM	TITLES	306	316	326	362	362	918
51	52	50F	52F	51	53	54	50
M	(M)	(M)	(M)	(M)	(M)	(M)	(M)

Q47 II 17 INDUCTANCE AND INDUCTIVE REACTANCE 6/0

Q48 II 24 GIVEN A SCHEMATIC DIAGRAM OF THREE INDUCTORS CONNECTED IN SERIES-PARALLEL, VALUES OF INDUCTANCES, SIGNAL FREQUENCY, AND FORMULAS, SOLVE FOR THE TOTAL INDUCTIVE REACTANCE CORRECTLY, AT LEAST TWO OUT OF THREE TIMES.
MEAS: PC 2/0

80	83-6 DO YOU USE OR REFER TO INDUCTANCE?	31.8	31.7	.0	50.0	21.7	14.3	6.1	81.9
81	83-7 DO YOU WORK WITH POWER INDUCTORS?	25.8	26.1	6.9	31.3	13.2	4.8	4.4	63.6
82	83-8 DO YOU USE OR REFER TO HENRIES?	16.7	20.5	.0	18.8	13.2	4.8	1.8	68.2
83	83-9 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?	21.2	11.2	3.4	.0	16.0	9.5	6.1	52.3
84	83-10 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?	13.6	18.6	.0	18.8	17.0	9.5	1.8	63.6
85	83-11 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?	13.6	9.3	3.4	.0	7.5	.0	.9	50.0
86	83-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?	12.1	18.0	.0	12.5	14.2	14.3	4.4	61.4
87	83-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL?	10.6	9.9	.0	.0	12.3	4.8	2.6	36.4
88	83-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL?	7.6	8.1	.0	6.3	11.3	4.8	2.6	36.4
89	83-15 DO YOU CALCULATE INDUCTIVE REACTANCE?	7.6	9.3	.0	6.3	10.4	.0	3.5	40.9
90	83-16 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?	6.1	3.7	.0	.0	7.5	.0	.9	36.4
91	83-17 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?	6.1	5.0	.0	.0	3.8	.0	.9	34.1
92	83-18 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE?	6.1	7.5	.0	.0	10.4	4.8	1.8	31.8
93	83-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?	6.1	9.3	.0	6.3	16.0	9.5	2.5	43.2
94	83-20 DO YOU USE OR REFER TO RFLY CURRENT LOSS IN INDUCTORS?	4.5	6.2	.0	.0	9.4	.0	.9	38.6
95	83-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?	4.5	6.8	.0	6.3	9.4	4.8	1.4	29.5
96	83-22 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	4.5	9.3	.0	37.5	10.4	.0	4.4	36.4

Q49 II 25 GIVEN AN INDUCTIVE CIRCUIT AND NECESSARY FORMULAS, DETERMINE THE EFFECT OF INDUCTIVE REACTANCE OF VARYING FREQUENCY ON INDUCTANCE WITHIN + OR - 20%
MEAS: PC 4/0

Q50 II 26 DO YOU REFER TO INDUCTIVE REACTANCE?

17.4	18.6	.0	19.2	17.0	9.5	1.8	63.6
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306	306	316	362	362	362	918
51	52	52F	51	53	54	50
MP*	(M)	(M)	(M)	(M)	(M)	(M)
12.1	18.0	.0	17.5	14.2	14.3	4.4
7.6	9.3	.0	6.3	10.4	.0	3.5
6.1	9.3	.0	6.3	16.0	9.5	2.6
						43.2

D TSK TITLES

B 91 B3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?

B 92 B3-15 DO YOU CALCULATE INDUCTIVE REACTANCE?

B 93 B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?

050 II 3. TRANSFORMERS

4/2

051 II 3A. GIVEN A SCHEMATIC DIAGRAM OF A TRANSFORMER CONNECTED TO A RESISTIVE LOAD, PRIMARY VOLTAGE, NUMBER OF PRIMARY AND SECONDARY TURNS, AND FORMULAS, DETERMINE THE SECONDARY CURRENT AND VOLTAGE WITHIN + OR - 10% ACCURACY.
MEAS: PC 4/0

C 138 C2-13 DO YOU WORK WITH POWER TRANSFORMERS?

C 149 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?

C 152 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?

C 150 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?

C 130 C2-5 DO YOU TROUBLESHOOT TRANSFORMERS?

C 146 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?

C 151 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?

C 145 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?

C 154 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?

C 157 C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?

C 160 C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?

C 148 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?

C 153 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?

C 158 C2-37 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH?

U TASK TITLES

C 147 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO
DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN
TURNS RATIO?

C 148 C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC
SYMBOLS?

C 139 C2-14 DO YOU WORK WITH AUDIO TRANSFORMERS?

C 159 C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE
TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE
RATIO?

C 161 C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS
USING TURNS RATIOS?

C 134 C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING
CURRENT OR VOLTAGE RATIOS?

C 135 C2-10 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH
TRANSFORMERS?

C 140 C2-15 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?

C 162 C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS
USING TURNS RATIOS?

C 137 C2-12 DO YOU WORK WITH AUTOTRANSFORMERS?

C 133 C2-3 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING
WHEN WORKING WITH TRANSFORMERS?

C 136 C2-11 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR
TRANSFORMERS?

C 132 C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?

C 131 C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND
MUTUAL INDUCTANCE (M)?

C52 II 4. CAPACITANCE AND CAPACITIVE REACTANCE 8/C

C53 II 4A. GIVEN A DIAGRAM OF THREE CAPACITORS CONNECTED IN
SERIES-PARALLEL, VALUES OF CAPACITANCE, SIGNAL FREQUENCY
AND FORMULAS, SOLVE CORRECTLY FOR TOTAL CAPACITIVE
REACTANCE AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 4/0

C 144 C2-10 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?

C 133 C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?

C 135 C1-20 DO YOU WORK WITH OTHER FIXED CAPACITORS?

C 146 C1-18 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR
PICOFARADS?

C 147 C2-11 DO YOU USE OR REFER TO CAPACITANCE?

C 148 C2-12 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF
CAPACITORS?

306	306	316	316	362	362	362	91A
51	52	50F	52F	51	53	54	50
MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)
19.7	26.1	.0	6.3	9.4	19.0	0.6	50.0
19.7	27.3	3.4	56.3	17.0	23.8	5.3	86.4
18.2	14.3	6.9	12.5	15.1	47.6	10.5	65.9
16.7	12.4	.0	18.8	4.7	14.3	.9	65.9
15.2	7.5	.0	6.3	2.8	14.3	.0	52.3
13.6	11.2	.0	18.8	4.7	14.3	2.6	59.1
13.6	9.3	.0	.0	3.8	4.8	1.8	22.7
12.1	7.5	6.9	6.3	2.8	.0	.9	52.3
10.6	6.2	.0	6.3	2.8	4.8	.0	34.1
7.6	6.8	.0	18.8	4.7	9.5	.9	88.6
6.1	6.2	.0	6.3	4.7	4.8	.0	29.5
6.1	2.5	.0	6.3	5.7	.0	.0	13.6
4.5	3.1	.0	6.3	3.8	.0	1.6	15.9
3.0	3.1	.0	.0	4.7	.0	.0	18.2
84.8	75.8	3.4	68.9	50.9	71.4	31.6	90.9
83.3	80.1	10.3	81.3	51.9	71.4	44.7	95.5
72.7	69.9	3.4	81.3	47.7	57.1	73.2	85.6
60.7	68.9	3.4	62.5	47.7	57.1	19.3	93.2
65.2	72.7	3.4	62.5	62.3	57.1	25.1	68.6
54.5	49.1	.0	62.5	35.6	47.6	11.4	61.8

POI MATCHED WITH SURVEY DATA

FCPDATE PAGE 252

C TASK TITLEC

C 118	C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT JOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?	36.4	38.5	6.9	47.4	31.1	28.6	17.5	72.7
C 117	C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?	28.8	39.8	.0	37.5	29.2	14.3	6.1	65.9
C 122	C1-24 DO YOU WORK WITH VARIABLE CAPACITORS?	27.3	25.5	.0	31.3	17.9	14.3	13.2	77.3
C 115	C1-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?	21.2	16.8	.0	6.3	22.6	14.3	9.6	40.9
C 119	C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?	12.2	24.2	.0	19.9	23.6	23.8	10.5	61.4
C 120	C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?	12.1	13.7	.0	.0	18.9	9.5	7.0	43.2
C 121	C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?	12.1	8.1	.0	6.3	14.2	.0	3.5	40.9
C 123	C1-27 DO YOU WORK WITH TRIMMER CAPACITORS?	12.1	14.3	.0	19.8	8.5	.0	2.6	68.2
C 116	C1-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT?	15.6	7.5	.0	.0	16.0	4.8	3.5	25.0
C 104	C1-8 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?	9.1	14.9	.0	18.8	11.3	9.5	2.6	22.7
C 117	C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?	9.1	6.8	.0	6.3	15.1	.0	3.5	27.3
C 108	C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?	7.6	9.3	.0	.0	12.2	.0	.0	31.8
C 105	C1-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC?	4.5	3.1	.0	6.3	4.7	4.8	.0	11.4

654 II 48. GIVEN A CAPACITIVE CIRCUIT TRAINER AND NECESSARY FORMULAS, DETERMINE THE EFFECT ON CAPACITIVE REACTANCE OF VARYING EITHER APPLIED FREQUENCY OR CAPACITANCE WITHIN + OR - 20 % ACCURACY. HEAD: FC 4/0

C 113	C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?	67.2	80.1	10.3	81.2	51.9	71.4	44.7	93.5
C 117	C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?	26.8	39.8	.0	37.5	29.2	14.3	6.1	65.9
C 100	C1-4 DO YOU ADJUST CAPACITORS?	27.3	25.5	.0	43.8	21.7	14.3	7.0	71.6
C 120	C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?	12.1	13.7	.0	.0	18.9	9.5	7.0	43.2
C 101	C1-15 DO YOU CALCULATE CAPACITIVE REACTANCE?	12.1	8.1	.0	6.3	14.2	.0	3.5	40.9

USE II 5. TABLE FOOTNOTES 5.0/0

POI MATCHED WITH SURVEY DATA

FCPPTS PAGE 253

306	306	316	362	362	919
51	52	5CF	51	53	50
MM	(M)	(M)	(M)	(M)	(M)

C TJK TITLES

256 11 5A. GIVEN A DC WAVE INPUT SIGNAL, USE THE OSCILLOSCOPE TO MEASURE VOLTAGE AMPLITUDE WITHIN + OR - 2% ACCURACY. MEAS: DC

F 325 F3-2 DO YOU PERFORM OPERATIONAL CHECKS USING OSCILLOSCOPES?
F 334 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGES?
F 326 F3-3 DO YOU PERFORM ALIGNMENTS OR ADJUSTMENTS USING OSCILLOSCOPES?

F 333 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGES?
A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

F 335 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS?

257 11 5B. GIVEN SEVERAL UNKNOWN FREQUENCIES USING THE OSCILLOSCOPE, DETERMINE THEIR FREQUENCY WITHIN + OR - 20% ACCURACY. MEAS: DC

A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?

F 333 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCIES?
F 329 F3-4 DO YOU USE OSCILLOSCOPES TO MEASURE TIME?

258 11 5C. SERIES RCL CIRCUITS 8/2

259 11 5D. GIVEN FORMULAS AND A SERIES RCL CIRCUIT SCHEMATIC WITH UNKNOWN VALUES, APPLIED VOLTAGE AND FREQUENCY DETERMINE VALUES FOR TOTAL IMPEDANCE, CURRENT, ALL COMPONENT VOLTAGE DROPS, AND APPROXIMATE PHASE ANGLE WITHIN + OR - 10% ACCURACY. MEAS: DC

260 11 5E. GIVEN A SERIES RCL CIRCUIT SCHEMATIC WITH UNKNOWN VALUES, APPLIED VOLTAGE AND FREQUENCY DETERMINE VALUES FOR TOTAL IMPEDANCE, CURRENT, ALL COMPONENT VOLTAGE DROPS, AND APPROXIMATE PHASE ANGLE WITHIN + OR - 10% ACCURACY. MEAS: DC

87.7	80.1	10.3	81.3	81.9	71.4	44.7	95.5
88.7	37.3	.0	43.8	15.1	14.3	2.6	88.6
84.5	37.3	27.6	50.7	21.7	23.8	5.3	88.6
16.7	16.1	3.4	18.8	6.6	4.8	2.6	54.5

POI MATCHED WITH TIMELY DATA

FCPPTS PAGE 254

D TSK TITLES

D 202 01-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?
D 204 01-28 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?
D 182 01-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?
D 127 01-5 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?
D 203 01-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?
D 181 01-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?
D 191 01-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?
D 201 01-22 DO YOU USE VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?
D 205 01-24 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS?
D 207 01-28 DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR SERIES RCL CIRCUITS?
A 18 01-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
D 190 01-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?
D 206 01-27 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR SERIES RCL CIRCUITS?
D 208 01-29 DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES RCL CIRCUITS?

260 11 50. USING SERIES RCL CIRCUITS AND A GIVEN FREQUENCY, USE THE OSCILLOSCOPE TO DETERMINE THE PHASE RELATIONSHIP BETWEEN RCL AND ER WITHIN A TOLERANCE OF + OR - 20%.
4945 PC
1.5/0

D 240 03-17 DO YOU USE OSCILLOSCOPES TO OBSERVE PHASE RELATIONSHIPS?

D 24 02-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?

D 186 01-7 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?

D 202 01-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?

D 204 01-28 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS?

D 182 01-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?

D 127 01-5 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?

POI	51	52	306	316	316	362	362	362	918
AMP	SCF	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
10.6	10.6	.0	.0	.0	6.6	4.8	.9	29.5	
9.1	8.1	.0	.0	.0	7.5	4.8	.9	39.6	
6.1	3.7	.0	.0	.0	4.7	4.8	.0	22.7	
6.1	6.2	.0	.0	.0	4.7	.0	.9	29.5	
6.1	3.7	.0	.0	.0	4.7	.0	.0	25.0	
4.5	3.1	.0	.0	.0	2.8	4.8	.0	29.5	
4.5	6.2	.0	.0	.0	4.7	.0	.0	25.0	
4.5	4.3	.0	.0	.0	3.8	4.8	.9	25.0	
4.5	3.7	.0	.0	.0	4.7	4.8	.0	20.5	
4.5	5.6	.0	.0	.0	2.8	.0	.0	25.0	
3.0	4.3	.0	.0	.0	1.9	4.8	.9	18.2	
3.0	5.0	.0	.0	.0	4.7	.0	.0	20.5	
3.0	3.1	.0	.0	.0	2.8	.0	.0	15.9	
3.0	5.0	.0	.0	.0	2.8	.0	.0	22.7	

POI	51	52	306	316	316	362	362	362	918
AMP	SCF	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
60.7	37.3	.0	.0	.0	43.9	15.1	14.3	2.6	88.6
54.5	37.3	27.6	50.0	21.7	23.8	1.3	1.3	44.6	
16.7	16.1	3.4	19.8	5.7	4.0	2.5	2.5	54.5	
10.6	10.6	.0	.0	.0	6.6	.0	.0	29.5	
9.1	8.1	.0	.0	.0	7.5	.0	.0	39.6	
6.1	3.7	.0	.0	.0	4.7	.0	.0	22.7	
6.1	6.2	.0	.0	.0	4.7	.0	.0	29.5	

FOR MATCHED WITH SURVEY DATA

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0 201 01-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT

IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT
FREQUENCY FOR SERIES RCL CIRCUITS?

0 227 01-44 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF
POWER POINTS ARE AT 70.7 OF THE PEAK CURRENT VALUE?

0 225 01-45 DO YOU DETERMINE HOW CHANGES IN FREQUENCY,
RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT
OR PHASE ANGLES FOR RCL CIRCUITS?

0 181 01-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL
CIRCUITS?

0 191 01-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING
WITH RCL CIRCUITS?

0 196 01-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING
WITH RCL CIRCUITS?

0 198 01-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?

0 190 01-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN
WORKING WITH RCL CIRCUITS?

0 197 01-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING
WITH RCL CIRCUITS?

0 219 01-40 DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE
(THETA) = 0, POWER FACTOR (PF) = 1, AND APPARENT POWER
(P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?

0 224 01-45 DO YOU USE OR REFER TO THE GENERAL RULE THAT
BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE
COIL (Q)?

062 II 9. PARALLEL RCL CIRCUITS

8/2

063 II 9A. GIVEN FORMULAS AND A PARALLEL RCL CIRCUIT SCHEMATIC
WITH COMPONENT VALUES, APPLIED VOLTAGE, AND FREQUENCY
INDICATED, SOLVE FOR BRANCH CURRENTS, IMPEDANCE AND
APPROXIMATE PHASE ANGLE WITHIN + OR - 10% ACCURACY.

4/0

0 113 01-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?

0 120 01-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
CIRCUIT PHASE RELATIONSHIPS IN YOUR PRESENT JOB?

0 117 01-22 DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE
FOR PARALLEL RCL CIRCUITS?

0 126 01-1 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL
CIRCUITS?

0 209 01-35 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL
CIRCUITS?

306 306 316 362 362 362 918
51 52 52F 51 53 54 50
52F (M) (M) (M) (M)

6.1 5.6 .0 6.3 3.8 .0 .9 43.2

6.1 6.2 .0 .0 1.0 .0 .0 38.6

6.1 6.2 .0 .0 4.7 9.5 .0 31.9

4.5 3.1 .0 .0 2.8 4.8 .0 29.5

4.5 6.2 .0 .0 4.7 .0 .0 25.0

4.5 4.3 .0 6.3 1.9 .0 .0 29.5

3.0 4.3 .0 6.3 1.9 4.8 .9 18.2

3.0 5.0 .0 .0 4.7 .0 .0 20.5

3.0 4.3 .0 .0 1.9 .0 .0 38.6

3.0 3.1 .0 .0 2.8 .0 .9 13.6

1.5 3.7 .0 .0 .9 .0 .0 27.3

83.3 80.1 11.3 11.7 51.0 71.4 44.7 95.5

54.5 37.3 27.0 50.0 21.7 23.8 5.3 88.6

18.2 10.6 .0 17.0 7.5 4.8 1.8 45.5

16.7 16.1 3.4 18.8 6.6 4.8 2.6 54.5

16.7 10.6 .0 4.3 4.7 4.8 .0 43.2

POI MATCHED WITH SURVEY DATA

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Q 100 TITLES

Q 102 Q1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS?
Q 103 Q1-23 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?
Q 107 Q1-23 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?
Q 203 Q1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS?
Q 181 Q1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?
Q 191 Q1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?
Q 201 Q1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS?
A 3 A1-3 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
Q 190 Q1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?

Q 64 Q1-98 USING A PARALLEL RCL CIRCUIT CONNECTED ON A TRAINER, DETERMINE THE RESONANT FREQUENCY AND BANDWIDTH OF THE FREQUENCY RESPONSE CURVE WITHIN + OR - 2% ACCURACY.
MEAS: PC 4/C

Q 113 Q1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?
Q 74 Q2-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?
Q 156 Q1-7 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?
Q 199 Q1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?
Q 209 Q1-30 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL CIRCUITS?
Q 192 Q1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS?
Q 185 Q1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?
Q 193 Q1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?
Q 182 Q1-2 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?
Q 187 Q1-6 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?
Q 194 Q1-10 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS?
Q 198 Q1-10 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?

Q	306	306	316	316	362	362	362	918
51	52	57F	57F	52F	51	53	54	50
PM	PM	PM	PM	PM	PM	PM	PM	PM
10.6	10.6	.0	.0	.0	6.6	4.8	.5	29.5
6.1	3.7	.0	.0	.0	4.7	4.8	.0	22.7
6.1	6.2	.0	.0	.0	4.7	.0	.9	29.5
6.1	3.7	.0	.0	.0	4.7	.0	.0	25.0
4.5	3.1	.0	.0	.0	2.8	4.8	.0	29.5
4.5	6.2	.0	.0	.0	4.7	.0	.0	25.0
4.5	4.3	.0	.0	6.3	3.8	4.8	.9	25.0
3.0	4.3	.0	.0	6.3	1.9	4.8	.9	18.2
3.0	5.0	.0	.0	.0	4.7	.0	.0	20.5
87.3	80.1	10.3	81.3	51.9	71.4	44.7	95.5	
54.5	37.3	27.6	50.0	21.7	23.8	5.3	88.6	
16.7	16.1	3.4	18.8	6.6	4.8	2.6	54.5	
16.7	11.8	.0	6.3	1.9	.0	.0	63.6	
16.7	10.6	.0	6.3	4.7	4.8	.9	43.2	
17.1	8.1	.0	6.3	5.7	4.8	2.6	54.5	
10.6	6.2	.0	17.5	3.8	4.6	.0	52.3	
7.6	5.6	.0	17.5	1.9	4.8	.0	40.9	
6.1	3.7	.0	.0	4.7	4.8	.0	22.7	
6.1	6.2	.0	.0	4.7	.0	.9	20.5	
6.1	4.3	.0	6.3	3.8	4.5	.0	29.5	
6.1	1.9	.0	.0	.0	.0	.0	22.7	

POI MATCHED WITH SURVEY DATA

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D TSM TITLES

C 220 D1-41 DO YOU USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS?
 C 222 D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS?
 C 225 D1-46 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS?
 D 181 D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?
 C 191 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?
 C 196 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?
 A R A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?
 D 190 D1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?
 C 197 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?
 D 219 D1-40 DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE (THETA) = 0, POWER FACTOR (PF) = 1, AND APPARENT POWER (P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?
 C 224 D1-49 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL (Q)?

C55 II 10. TROUBLESHOOTING REACTIVE COMPONENTS 2/0

C66 II 10A. USING A MULTIMETER AND TRAINER HAVING AN OPEN OR SHORTED COMPONENT IN A SERIES RCL CIRCUIT, LOCATE THE FACULTY COMPONENT AT LEAST TWO OUT OF THREE TIMES.
 MEAS: PC

C 101 D1-5 DO YOU TEST CAPACITORS?
 C 213 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS?
 R 79 D2-5 DO YOU MEASURE INDUCTORS?
 C 215 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS?
 D 214 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION?
 C 216 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?

C67 II 11. ON JUNCTIONS AND CIRCUITS 4/2

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
PM	(M)	(M)	(M)	(M)	(M)	(M)	(M)
6.1	6.2	.0	6.3	4.7	.0	1.8	50.0
6.1	5.5	.0	.0	1.9	.0	.0	36.4
6.1	6.2	.0	.0	4.7	9.5	.0	31.8
4.5	3.1	.0	.0	2.8	4.8	.0	29.5
4.5	6.2	.0	.0	4.7	.0	.0	25.0
4.5	4.3	.0	6.3	1.9	.0	.0	29.5
3.0	4.3	.0	6.3	1.9	4.8	.9	18.2
3.0	5.0	.0	.0	4.7	.0	.0	20.5
3.0	4.3	.0	.0	1.9	.0	.0	38.6
3.0	3.1	.0	.0	1.8	.0	.9	13.5
1.5	3.7	.0	.0	.9	.0	.0	27.3
75.8	75.8	3.4	68.8	54.7	52.4	28.9	97.2
34.6	27.3	.0	18.8	10.4	28.6	7.9	72.7
25.8	28.0	.0	43.8	17.0	9.5	3.5	61.4
24.2	23.6	.0	18.8	8.0	15.0	4.4	65.0
21.2	15.5	.0	12.5	7.8	19.0	2.1	61.4
17.6	13.0	.0	6.3	7.8	14.3	1.5	59.0

D TSK TITLES

068 II 11A. GIVEN AN ENERGY LEVEL DIAGRAM OF A SEMICONDUCTOR MATERIAL, IDENTIFY THE VALENCE BAND, FORBIDDEN BAND, CONDUCTION BAND, CURRENT CARRIER PRODUCED BY HEAT AND CURRENT CARRIER PRODUCED BY DOPING, CORRECTLY, AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 1.5/D

0 305 G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?
0 349 G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?
0 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN 538?
0 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?
0 370 G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?
0 369 G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?
0 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?
0 366 G1-25 DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?
A 20 A2-9 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM PROTON?
A 18 A2-7 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM NEUTRON?
0 360 G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW?
0 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?
0 371 G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?
0 372 G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?
0 345 G1-4 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES?
0 367 G1-26 DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?
A 15 A2-4 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ION?
0 361 G1-20 DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?
0 363 G1-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?
0 365 G1-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?
0 364 G1-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
AP	(M)	(M)	(M)	(M)	(M)	(M)	(M)
81.8	63.4	.0	68.8	29.2	52.4	7.0	93.2
69.2	56.5	.0	43.8	34.0	47.6	8.8	88.6
54.5	46.0	.0	62.5	17.0	42.9	2.6	81.8
53.0	39.8	3.4	43.8	24.5	23.8	3.5	72.7
47.0	24.8	.0	25.0	11.3	23.8	3.5	72.7
45.5	24.8	.0	31.3	11.3	23.8	3.5	72.7
33.3	18.6	3.4	18.8	13.2	14.3	.0	68.2
21.2	18.0	.0	18.8	9.4	9.5	1.8	56.8
19.7	16.1	3.4	18.8	16.0	.0	3.5	56.8
18.2	14.9	6.9	18.8	13.2	.0	4.4	54.5
18.2	9.9	.0	12.5	5.7	14.3	.0	29.5
16.7	6.8	.0	25.0	5.7	19.0	.0	63.6
16.7	14.3	.0	12.5	5.7	4.8	.9	43.2
16.7	14.9	.0	12.5	5.7	4.8	.9	43.2
12.1	3.1	.0	6.3	2.8	4.8	.0	18.2
7.6	10.6	.0	12.5	5.7	4.8	.9	31.8
6.1	7.5	10.2	81.3	7.5	.0	3.5	72.7
6.1	11.8	.0	12.5	6.6	4.8	.9	40.9
6.1	11.2	.0	12.5	6.6	4.8	.9	45.5
6.1	10.6	.0	19.8	6.6	4.8	.9	45.5
4.5	10.6	.0	12.5	6.6	4.8	.9	27.3

Q TSK TITLES

G 368 G1-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?
G 362 G1-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?

D69 XI 11b. GIVEN AN ENERGY LEVEL DIAGRAM OF A PN JUNCTION, SELECT FROM A LIST THE STATEMENT(S) THAT DESCRIBE(S) JUNCTION RECOMBINATION, DEPLETION REGION CHARACTERISTICS, FORWARD BIAS CONDUCTION, REVERSE BIAS, CONDUCTION, AND THE EFFECT OF TEMPERATURE CHANGES ON CONDUCTION, CORRECTLY, AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 1/0

G 356 G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?

G 344 G1-3 DO YOU CHECK DIODES?

G 351 G1-10 DO YOU MEASURE FORWARD BIAS RESISTANCE?

G 352 G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?

G 360 G1-19 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?

G 370 G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?

G 369 G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?

G 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OR RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?

G 376 G1-35 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES?

G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?

G 382 G1-41 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS?

G 350 G1-9 DO YOU REFER TO US TO DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW?

G 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?

G 371 G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?

G 372 G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?

G 381 G1-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS?

G 379 G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
P	(M)	(M)	(M)	(M)	(M)	(M)	(M)
4.5	9.9	.0	18.8	5.7	4.8	.9	31.8
7.0	9.9	.0	12.5	5.7	4.8	.9	27.3
81.8	65.2	3.4	50.0	41.5	52.4	9.6	93.2
77.3	68.9	.0	68.8	43.4	61.9	9.6	90.9
57.6	46.0	.0	56.3	18.9	23.8	1.8	79.5
56.1	46.0	.0	56.3	17.9	23.8	1.8	79.5
51.5	40.4	.0	18.8	18.9	28.6	5.3	81.8
47.0	24.8	.0	25.0	11.3	23.8	3.5	72.7
45.5	24.8	.0	31.3	11.3	23.8	3.5	72.7
33.3	18.6	3.4	18.8	13.2	14.3	.0	68.2
28.8	17.4	.0	18.8	4.7	4.8	1.8	45.5
22.7	12.4	.0	6.3	9.4	28.6	2.6	54.5
19.7	15.5	.0	18.8	4.7	4.8	.0	72.7
18.2	9.9	.0	12.5	5.7	14.3	.0	29.5
16.7	6.8	.0	25.0	5.7	19.0	.0	63.6
16.7	14.3	.0	12.5	5.7	4.8	.9	43.2
16.7	14.9	.0	12.5	5.7	4.8	.9	43.2
16.7	11.8	3.4	12.5	4.7	.0	.0	54.5
15.2	14.3	.0	12.5	4.7	.0	.0	70.5

POI MATCHED WITH SURVEY DATA

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O TSM TITLES

G 375 G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?
G 380 G1-39 DO YOU USE OF REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS?
G 373 G1-32 DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?
G 377 G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS?
G 374 G1-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?

306	306	316	362	352	362	918
51	52	50F	51	53	54	50
M	(M)	(M)	(M)	(M)	(M)	(M)
9.1	13.7	.0	12.5	7.5	4.8	.9
47.7						
9.1	12.4	.0	6.3	4.7	.0	.0
52.3						
7.6	11.2	.0	1P.8	6.6	4.8	.9
38.5						
7.6	6.2	.0	.0	5.7	4.8	.9
20.5						
6.1	12.4	.0	12.5	7.5	4.8	.9
50.0						

O70 II 11C. GIVEN A DIODE CIRCUIT TRAINER AND TEST EQUIPMENT, VARY BIAS VOLTAGE AND PLOT CURVE OF THE RESULTING CURRENT THAT SHOW ITS CORRECT RELATION TO BIAS VOLTAGE WITHIN + OF - 20 % / CCURACY. MEAS: PC 1.5/0

G 346 G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?
G 347 G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?
G 376 G1-35 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES?
G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?

28.8	13.7	.0	12.5	9.4	19.0	.9
47.7						
28.8	14.3	.0	25.0	8.5	9.5	.0
43.2						
28.8	17.4	.0	18.8	4.7	4.8	1.8
45.5						
27.7	12.4	.0	6.3	9.4	28.6	2.5
54.5						

O71 II 17. RECTIFIERS AND FILTERS 5.5/2

O72 II 12A. USING STANDARD TEST EQUIPMENT, DETERMINE THE WAVEFORM AND PEAK AND AVERAGE VOLTAGES OF THE OUTPUT OF AN UNFILTERED FULL WAVE RECTIFIER TRAINER. VOLTAGES MUST BE WITHIN + OR - 20% OF KNOWN OUTPUT. MEAS: PC 3/0

F 337 F3-14 DO YOU USE OSCILLOSCOPES TO MEASURE RIPPLE VOLTAGES?
H 478 H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?
H 480 H2-14 DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 476 H2-10 DO YOU WORK WITH HALF-WAVE RECTIFIERS?
H 484 H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?

84.4	44.7	.0	81.3	13.2	42.9	.9
79.5						
81.8	57.8	10.3	75.0	18.9	47.6	12.3
93.2						
81.8	68.3	37.9	81.3	34.0	66.7	27.2
93.2						
72.7	50.9	3.4	56.3	20.8	19.0	7.0
93.2						
72.7	28.0	.0	56.3	9.4	19.0	2.5
68.2						

POI MATCHED WITH SURVEY DATA

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OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

D TASK TITLES

306 306 316 362 362 362 919
51 52 50F 51 53 54 50
MM (M) (M) (M) (M) (M)

71.2 57.1 3.4 62.5 26.4 33.3 4.4 58.6

66.7 52.2 17.2 50.0 30.2 23.8 26.3 70.5

65.2 50.3 13.6 43.2 25.5 38.1 18.4 81.9

56.1 42.9 13.8 50.0 21.7 33.3 13.2 79.5

53.0 44.7 .0 31.3 5.7 33.3 3.5 84.1

50.0 21.7 .0 25.0 6.6 4.8 1.8 61.4

43.0 29.8 24.1 25.0 13.2 33.3 10.5 72.7

30.3 18.0 3.4 50.0 19.9 9.5 2.6 58.2

25.8 18.6 .0 18.8 9.5 4.8 2.6 70.5

16.7 6.2 13.6 43.8 5.7 .0 .0 81.8

C 163 C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?

073 11 126. GIVEN A RECTIFIER TRAINER WITH A PI TYPE FILTER, A MULTIMETER AND AN OSCILLOSCOPE, DETERMINE THE EFFECT ON OUTPUT VOLTAGE AMPLITUDE AND WAVE SHAPE WHEN FILTER COMPONENTS OR LOAD IS CHANGED. ACCURACY WITHIN + OR - 20% IS REQUIRED. MEAS: PC 2.5/0

F 337 F3-14 DO YOU USE OSCILLOSCOPES TO MEASURE PIPPLE VOLTAGES?
H 489 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS?

86.4 44.7 .0 81.3 13.2 42.9 .9 79.5
80.3 51.6 13.8 50.0 14.2 42.9 13.2 84.1

H 490 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS?

43.0 32.9 6.9 25.0 13.2 14.3 12.3 81.8

H 491 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS?

30.4 21.1 .0 12.5 3.6 9.5 2.6 65.9

H 494 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS?

31.8 11.8 .0 12.5 3.8 9.5 2.6 52.3

H 492 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS?

27.3 16.1 .0 6.7 4.7 4.8 1.8 65.9

H 493 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS?

22.7 11.2 .0 12.5 2.8 4.6 1.8 52.3

074 111. SOLID STATE AMPLIFIERS 38 HRS TT

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
MM*	(M)	(M)	(M)	(M)	(M)	(M)	(M)

D TSK TITLES

075 III 1. AMPLIFIER PRINCIPLES 16/6

076 III 1A. GIVEN THREE TRANSISTOR CIRCUIT DIAGRAMS, SELECT THE DIAGRAM THAT ILLUSTRATES PROPER BIAS, DIRECTION, AND MAGNITUDE OF CURRENT CORRECTLY AT LEAST TWO OUT OF THREE TIMES. MEAS: PC 2/0

0 393 62-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?
6 394 62-12 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS J1, A2, A3, ETC.?
0 396 62-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS?
6 387 62-5 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND RESISTANCE MEASUREMENTS?
6 398 62-6 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS?
6 391 62-9 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?
6 389 62-7 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?
6 397 62-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?
6 396 62-8 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?
6 396 62-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB B) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 5 PERCENT OF I(SUB E)?
6 391 62-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUR CBO) IN A TRANSISTOR?
6 396 62-15 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?
6 396 62-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?

077 III 10. GIVEN FOUR DIAGRAMS OF AN OHMMETER CONNECTED TO A SUB TRANSISTION, CORRECTLY MATCH AT LEAST THREE OUT OF FOUR WITH THE PROPER METER INDICATION. MEAS: PC C/2

0 388 62-3 DO YOU KNOW TRANSISTORS?

86.4	77.0	6.9	81.3	22.6	61.9	13.2	95.5
84.8	77.0	3.4	75.0	20.8	61.9	11.4	93.2
75.8	65.2	3.4	43.8	23.6	47.6	7.0	90.9
74.2	66.5	3.4	62.5	19.8	47.6	7.9	86.4
74.2	67.1	3.4	62.5	20.8	47.6	7.9	86.4
54.5	39.1	3.4	43.8	13.2	47.6	4.4	81.8
51.5	32.3	3.4	31.3	11.3	28.6	3.5	70.5
50.0	50.3	.0	31.3	8.5	19.0	5.3	84.1
48.5	32.3	3.4	31.3	11.3	23.8	3.5	65.9
36.4	34.2	.0	18.8	5.7	19.0	.9	68.2
19.7	28.6	.0	18.8	5.7	14.3	2.6	52.3
15.2	23.5	.0	12.5	5.7	14.3	1.6	52.3
6.1	10.6	.0	18.4	.9	9.5	.9	43.2
63.3	79.9	3.4	62.5	24.5	71.4	16.7	93.2

706 306 316 362 362 362 918
51 52 50F 51 53 54 50
PM (M) (M) (M) (M)

Q TSK TITLES

III 10. 11. A COMMON EMITTER CIRCUIT AND STANDARD TEST
EQUIPMENT, FROM OBSERVATIONS OF CIRCUIT CONDITIONS AND
INPUT/OUTPUT SIGNAL RELATIONS, COMPLETE AT LEAST THREE OF
FIVE STATEMENTS CORRECTLY ON CIRCUIT OPERATION.
MEAS: PC 4/0

G 114 C1-1P DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC
AND AC?
G 421 G3-15 DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR
AMPLIFIERS?
G 409 G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?
G 417 G3-11 DO YOU USE OR REFER TO THE CHANGE IN BASE CURRENT
WHICH RESULTS FROM AN INPUT SIGNAL CONCERNING TRANSISTOR
AMPLIFIERS?
G 416 G3-10 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR
VOLTAGE RESULTS FROM A CHANGE IN BASE CURRENT?
G 414 G3-8 DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR CURRENT
RESULTS FROM A CHANGE IN BASE CURRENT CONCERNING
TRANSISTOR AMPLIFIERS?
G 420 G3-14 DO YOU USE OR REFER TO THE OPERATING POINT Q
(QUICK SCENT POINT) FOR A TRANSISTOR?
G 418 G3-12 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO
MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS
FROM A SPECIFIC INPUT SIGNAL CONCERNING TRANSISTOR
AMPLIFIERS?
G 424 G3-18 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER
VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?
G 405 G2-27 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC
TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE
VOLTAGE GAIN ($AP = A_V \times A_P$)?
G 415 G3-9 DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO
SPECIFIC CHANGE IN BASE CURRENT CONCERNING TRANSISTOR
AMPLIFIERS?
G 410 G3-13 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR
CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-
LINE ON A TRANSISTOR CHARACTERISTIC CURVE)?
G 407 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO
THE BASE COLLECTOR VOLTAGE ($A_V = V_{CE}/V_{BE}$)?
G 404 G2-20 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC
TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO
THE CHANGE IN COLLECTOR CURRENT ($A_I = I_C/I_B$)?

75.8 73.9 10.3 68.8 55.7 71.4 44.7 95.5
27.3 14.9 .0 25.0 3.8 19.0 2.0 61.9
24.2 13.7 .0 25.0 12.3 42.9 7.0 55.9
20.2 14.3 .0 18.8 1.9 14.3 .9 59.1
18.2 13.7 .0 12.5 1.0 9.5 .9 61.4
15.2 14.3 .0 12.5 1.0 9.5 .9 52.3
12.1 6.2 .0 6.3 1.9 4.8 1.8 31.8
10.6 8.1 .0 6.3 1.9 9.5 .9 36.4
10.6 5.0 .0 12.5 3.8 .0 .0 25.0
4.5 5.6 2.4 6.3 1.9 4.8 .0 22.7
4.5 6.2 .0 6.3 1.9 9.5 .9 21.8
4.5 2.5 .0 6.3 .9 .0 1.0 18.2
3.0 6.2 2.4 4.8 1.9 4.8 .0 20.7
3.0 5.0 3.4 4.8 2.5 4.8 .0 18.2

POI MATCHED WITH SURVEY DATA

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206	306	316	326	362	362	362	918
51	52	50F	51	53	54	54	50
MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)

G 435 63-20 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?

093 III 1M. GIVEN A SCHEMATIC DIAGRAM OF A TEMPERATURE STABILIZED TRANSISTOR AMPLIFIER CIRCUIT, CORRECTLY MATCH AT LEAST TWO OF THE THREE METHODS OF MINIMIZING VARIATIONS IN COLLECTOR CURRENT. MEAS: PC 2/0

G 408 63-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?

G 429 63-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?

G 425 63-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION?

G 407 63-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION?

G 404 63-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION?

G 430 63-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?

G 434 63-26 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?

G 406 III 1M. GIVEN A LIST OF STATEMENTS THAT DESCRIBE THE CAPACITIES OF DIRECT, RESISTANCE CAPACITANCE, IMPEDANCE OR TRANSFORMER COUPLING AS RELATED TO GAIN AND FREQUENCY RESPONSE, MATCH CORRECTLY AT LEAST TWO OUT OF THREE WITH THAT METHOD OF AMPLIFIER COUPLING. MEAS: PC 1/0

G 114 61-14 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?

G 150 61-12 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING?

G 110 61-13 DO YOU WORK WITH INDUCTIVE-RESISTIVE COUPLED CIRCUITS?

24.2 11.8 .0 18.3 1.9 9.5 .9 43.2

24.2 12.4 .0 18.8 1.9 4.8 .9 38.6

18.2 10.6 .0 18.8 1.9 9.5 .0 45.5

16.7 9.9 .0 12.5 1.9 4.8 .0 38.6

17.6 6.8 .0 18.8 1.9 9.5 .0 40.9

6.1 7.5 .0 12.5 1.9 4.8 .0 38.6

4.5 7.5 .0 6.3 .9 .0 43.2

75.8 73.9 10.3 68.8 55.7 71.4 44.7 66.3

47.0 19.9 .0 25.0 4.7 9.5 .9 77.7

43.0 18.6 .0 19.8 5.7 9.5 2.8 79.5

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POI MATCHED WITH SURVEY DATA

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Q TSM	TITLES	FOODS	PAGE	268	FOODS	PAGE	268
E 251	Q1-3 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING (MATCHING)?	306	316	362	362	352	918
E 257	Q1-9 DO YOU WORK WITH IMPEDANCE COUPLING CIRCUITS?	51	52	53	54	50	50
E 257	Q1-9 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING?	19.3	19.3	14.3	14.3	4.4	68.2
E 262	Q1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?	22.7	16.1	14.3	4.4	70.5	70.5
E 250	Q1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	19.7	16.8	4.8	2.6	70.5	70.5

Q85 III 10. GIVEN A LIST OF STATEMENTS DESCRIBING THE CAUSE OF AMPLITUDE, FREQUENCY, OR PHASE DISTORTION, CORRECTLY MATCH AT LEAST THREE OUT OF FIVE WITH THE TYPE OF DISTORTION.
MEAS: PC 1/0

Q 431 53-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?
Q 432 53-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?
Q 433 53-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?

Q86 III 2. VOLTAGE REGULATORS 4/2

Q87 III 2A. GIVEN A SCHEMATIC DIAGRAM OF A ZENER DIODE VOLTAGE REGULATOR, CORRECTLY COMPLETE AT LEAST THREE OF FIVE STATEMENTS ON CIRCUIT OPERATION. MEAS: PC 1/0

Q 437 41-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS?
Q 438 42-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?

Q88 III 30. GIVEN A SERIES ELECTRONIC VOLTAGE REGULATOR, FROM MEASUREMENTS OF DIODES IN VOLTAGE ACROSS SPECIFIED COMPONENTS AT THE INPUT VOLTAGE, LOAD, OR THE OUTPUT IS VOLTAGE CORRECTLY COMPLETE AT LEAST THREE OF THE FIVE STATEMENTS. MEAS: PC 3/0

AD-A143 437

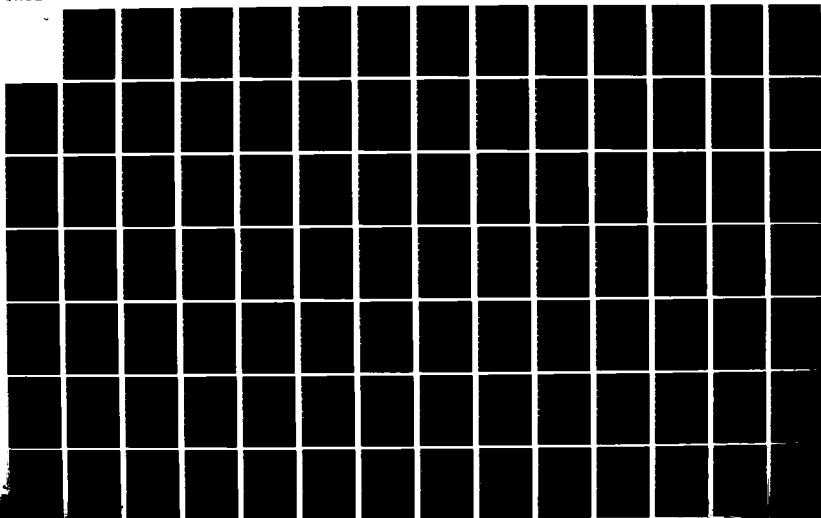
ELECTRONIC PRINCIPLES INVENTORY SHEPPARD TECHNICAL
TRAINING CENTER AFPT 90-EPI-485(U) AIR FORCE
OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX JUN 84

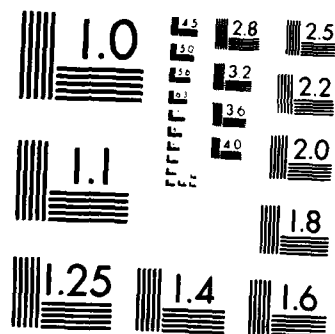
4/5

UNCLASSIFIED

F/G 5/9

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

POT WATCHED WITH SUPPLY DATA

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D TSK TITLES

306	306	316	362	362	918
51	52	50F	51	53	50
MM*	(M)	(M)	(M)	(M)	(M)
68.2	56.5	6.9	31.3	38.1	28.8

H 497 H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR CIRCUITS?

089 III 2C. GIVEN A LIST OF STATEMENTS, SELECT AT LEAST TWO OF THE THREE CONDITIONS NECESSARY FOR A SILICON CONTROLLED RECTIFIER TO CONDUCT. MEAS: PC 0/2

H 462 H1-1C DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS?

78.8	22.4	6.9	68.8	4.7	14.3	2.6	95.5
------	------	-----	------	-----	------	-----	------

090 III 3. VOLTAGE AMPLIFIERS 4/0

091 III 3A. GIVEN A TWO-STAGE RC-COUPLED TRANSISTOR AUDIO AMPLIFIER AND STANDARD TEST EQUIPMENT, DETERMINE VOLTAGE GAIN AND PLOT FREQUENCY RESPONSE FROM MEASURED VALUES WITHIN \pm 20% ACCURACY. MEAS: PC

G 444 G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?
G 445 G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?

15.2	5.0	.0	18.8	6.6	38.1	1.8	61.4
10.6	3.7	.0	12.5	1.9	.0	.0	56.8

092 III 4. POWER AMPLIFIERS 3.5/0

093 III 4A. GIVEN STANDARD TEST EQUIPMENT AND A SOLID-STATE PUSH-PULL AMPLIFIER TRAINER, FROM OBSERVATIONS OF THE CIRCUIT OUTPUT AS FORWARD BIAS IS VARIED, CORRECTLY COMPLETE AT LEAST TWO OF THE THREE STATEMENTS ON CLASS OF OPERATION AND CROSSTOVER DISTORTION. MEAS: PC 2.5/0

G 446 G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?

22.7	13.7	.0	18.8	2.8	23.8	.9	79.5
19.7	10.6	.0	18.8	3.8	19.0	.0	72.7

G 437 G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?

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306	306	316	362	362	362	918
51	52	50F	51	53	54	50
#M*	(M)	(M)	(M)	(M)	(M)	(M)

D TSM TITLES

094 III 4B. GIVEN A SCHEMATIC DIAGRAM OF A PARAPHASE AMPLIFIER, COMPLETE AT LEAST TWO OF THREE STATEMENTS CORRECTLY THAT DESCRIBE THE PHASE RELATIONSHIP AND AMPLITUDE OF THE OUTPUT SIGNALS OF A PARAPHASE AMPLIFIER. MEAS: PC 1/0

G 436 G3-3C DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?
G 446 G3-4D DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?

1.5	3.7	.0	6.3	1.9	.0	.9	40.9
1.5	3.7	.0	.0	1.9	.0	.0	36.4

095 IV. SOLID STATE OSCILLATORS AND MULTIVIBRATORS 38 HRS TT

096 IV 1. LC OSCILLATORS 6/2

097 IV 1A. GIVEN A SCHEMATIC DIAGRAM OF AN ARMSTRONG OSCILLATOR CORRECTLY MATCH AT LEAST TWO OF THE THREE FUNCTIONS: FEEDBACK LOOP, FREQUENCY DETERMINING DEVICES, AND FORWARD BIAS NETWORK; WITH ITS COMPONENTS/NETWORK. MEAS: PC 1/0

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?
H 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
H 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
H 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?
H 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
H 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
H 516 H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	17.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
21.2	8.7	.0	12.5	3.8	9.5	.0	59.1
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5
10.6	3.7	.0	.0	.0	.0	.0	45.5

098 IV 1B. GIVEN AN ARMSTRONG OSCILLATOR TRAINER, MULTIMETER, AND OSCILLOSCOPE, CONFIGURE TRAINER AND MEASURE THE OUTPUT AMPLITUDE AND FREQUENCY TO ± OR - TWENTY PERCENT ACCURACY. MEAS: PC 1.5/C

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2

POI MATCHED WITH SURVEY DATA

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O TSM

TITLES

M 506 M3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?

M 508 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?

M 511 M3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?

M 507 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?

M 510 M3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

099 IV 1C. GIVEN A SCHEMATIC DIAGRAM OF A SERIES FED HARTLEY OSCILLATOR, CORRECTLY MATCH AT LEAST TWO OF THE THREE FUNCTIONS TO DETERMINE THE FEEDBACK LOOP, FREQUENCY DETERMINING DEVICES AND FORWARD BIAS NETWORK; WITH ITS COMPONENTS/NETWORK. MEAS: PC 1/0

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?

M 505 M3-8 DO YOU USE OR REFER TO FEEDBACK IDEGENERATIVE OR REGENERATIVE?

M 506 M3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?

M 508 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?

M 511 M3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?

M 507 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?

M 510 M3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

100 IV 1D. GIVEN A SERIES FED HARTLEY OSCILLATOR WITH A BUFFER AMPLIFIER TRAINER, MULTIMETER AND OSCILLOSCOPE, CONFIGURE TRAINER AND MEASURE THE OUTPUT AMPLITUDE AND FREQUENCY TO + OR - TWENTY PERCENT ACCURACY. MEAS: PC 1.5/0

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?

M 505 M3-8 DO YOU USE OR REFER TO FEEDBACK IDEGENERATIVE OR REGENERATIVE?

M 506 M3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?

M 508 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?

M 511 M3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?

M 507 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?

M 510 M3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

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306 306 316 316 362 362 362 919
51 52 50F 51 53 54 50
M (M) (M) (M) (M) (M) (M)

27.3 8.1 .0 12.5 8.5 23.8 .0 65.9

21.2 9.9 .0 6.3 10.4 23.8 .9 50.0

21.2 8.7 .0 12.5 3.8 9.5 .0 59.1

15.2 8.1 .0 .0 7.5 19.0 .0 50.0

10.6 8.7 .0 .0 4.7 4.8 .0 45.5

75.8 73.9 10.3 68.9 55.7 71.4 44.7 95.5

27.3 8.1 3.4 6.3 6.6 14.3 .9 68.2

27.3 8.1 .0 12.5 8.5 23.8 .0 65.9

21.2 9.9 .0 6.3 10.4 23.8 .9 50.0

21.2 8.7 .0 12.5 3.8 9.5 .0 59.1

15.2 8.1 .0 .0 7.5 19.0 .0 50.0

10.6 8.7 .0 .0 4.7 4.8 .0 45.5

75.8 73.9 10.3 68.9 55.7 71.4 44.7 95.5

27.3 8.1 3.4 6.3 6.6 14.3 .9 68.2

27.3 8.1 .0 12.5 8.5 23.8 .0 65.9

21.2 9.9 .0 6.3 10.4 23.8 .9 50.0

21.2 8.7 .0 12.5 3.8 9.5 .0 59.1

15.2 8.1 .0 .0 7.5 19.0 .0 50.0

10.6 8.7 .0 .0 4.7 4.8 .0 45.5

POI MATCHED WITH SURVEY DATA

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D TSK TITLES

306	306	316	316	362	362	918
51	52	50F	52F	51	53	50
MM*	(M)	(M)	(M)	(M)	(M)	(M)

101 IV 1E. GIVEN A SCHEMATIC DIAGRAM OF A SHUNT FED HARTLEY OSCILLATOR, CORRECTLY MATCH AT LEAST TWO OF THE THREE FUNCTIONS, FORWARD BIAS NETWORK, FEEDBACK LOOP, AND FREQUENCY DETERMINING DEVICES WITH ITS COMPONENTS/NETWORK.
MEAS: PC
1/0

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK IDEGENERATIVE OR REGENERATIVE)?
M 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
M 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
M 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?
M 517 H3-20 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS?
M 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
M 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
21.2	8.7	.0	12.5	3.8	9.5	.0	59.1
18.2	4.3	.0	6.3	.9	.0	.0	50.0
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5

102 IV 1F. GIVEN A SCHEMATIC DIAGRAM OF A COLPITTS OSCILLATOR, CORRECTLY MATCH AT LEAST TWO OF THE THREE FUNCTIONS; FORWARD BIAS NETWORK, FEEDBACK LOOP AND FREQUENCY DETERMINING DEVICES WITH ITS COMPONENT/NETWORK.
MEAS: PC
0/1

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
M 504 H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?
M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK IDEGENERATIVE OR REGENERATIVE)?
M 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
M 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
M 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?
M 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
M 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
M 518 H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
28.8	14.3	.0	.0	7.5	9.5	.0	72.7
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
21.2	8.7	.0	12.5	3.8	9.5	.0	59.1
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5
4.5	2.5	.0	.0	.9	.0	.9	22.7

103 IV 1G. GIVEN A SCHEMATIC DIAGRAM OF A CLAPP OSCILLATOR, CORRECTLY MATCH AT LEAST TWO OF THE THREE FUNCTIONS; FORWARD BIAS NETWORK, FEEDBACK LOOP AND FREQUENCY DETERMINING DEVICES WITH ITS COMPONENTS/NETWORK.
MEAS: PC
0/1

POI MATCHED WITH SURVEY DATA

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D TSM TITLES

C 114 C1-16 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?
H 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
H 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
H 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK CIRCUITS?
H 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
H 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
H 519 H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
#M#	(M)	(M)	(M)	(M)	(M)	(M)	(M)
75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
21.2	8.7	.0	12.5	3.8	9.5	.0	59.1
15.7	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5
6.1	2.5	.0	.0	.9	.0	.9	20.5

104 IV 2. RC OSCILLATORS
4/2

105 IV 2A. GIVEN A SCHEMATIC DIAGRAM OF A PHASE SHIFT OSCILLATOR CIRCUIT CORRECTLY MATCH AT LEAST TWO OF THE THREE COMPONENTS/NETWORKS THAT COMPRISE THE FEEDBACK LOOP, FREQUENCY DETERMINING DEVICES AND FORWARD BIAS NETWORK.
MEAS: PC 1.5/D

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
H 512 H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?
H 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
H 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
H 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
H 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
33.3	11.8	.0	12.5	3.8	19.0	.0	65.9
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5

106 IV 2B. GIVEN A PHASE SHIFT OSCILLATOR TRAINER, A MULTIMETER AND OSCILLOSCOPE, CONFIGURE TRAINER AND MEASURE THE AMPLITUDE AND FREQUENCY OF THE WAVEFORM WITHIN TWENTY PERCENT ACCURACY. MEAS: PC 1.5/D

C 114 C1-16 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
H 512 H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
33.3	11.8	.0	12.5	3.8	19.0	.0	65.9

POI MATCHED WITH SURVEY DATA

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D TSM TITLES

M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?
M 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
M 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
M 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
M 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

206	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
M	(M)	(M)	(M)	(M)	(M)	(M)	(M)
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.7	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5

107 IV 2C. GIVEN A SCHEMATIC DIAGRAM OF A WIEN BRIDGE OSCILLATOR CIRCUIT, MATCH AT LEAST THREE OF THE FOUR COMPONENTS/NETWORKS THAT COMPRISE THE FORWARD BIAS NETWORK, REGENERATIVE FEEDBACK LOOP, DEGENERATIVE FEEDBACK LOOP, AND FREQUENCY DETERMINING DEVICE. MEAS: PC 1/0

C 114 C1-16 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
M 512 H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC NETWORKS?
M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?
M 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?
M 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
M 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
M 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
M 523 H3-26 DO YOU WORK WITH WIEN BRIDGE OSCILLATORS SINUSOIDAL OSCILLATORS?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
33.3	11.8	.0	12.5	3.8	19.0	.0	65.9
27.3	8.1	3.4	6.3	6.6	14.3	.9	68.2
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0
15.2	8.1	.0	.0	7.5	19.0	.0	50.0
10.6	8.7	.0	.0	4.7	4.8	.0	45.5
9.1	5.0	.0	6.3	.0	.0	.0	50.0

108 IV 3. CRYSTAL OSCILLATORS

2/0

109 IV 3A. GIVEN THE SCHEMATIC DIAGRAM OF THE CRYSTAL CONTROLLED BUTLER OSCILLATOR CIRCUIT, CORRECTLY MATCH AT LEAST TWO OF THE THREE COMPONENTS/NETWORKS THAT COMPRISE THE FORWARD BIAS NETWORK, FEEDBACK LOOP AND FREQUENCY DETERMINING DEVICE. MEAS: PC 2/0

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?
M 513 H3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?
M 521 H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?
M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?

75.8	73.9	10.3	68.8	55.7	71.4	44.7	95.5
40.0	10.6	3.4	6.3	3.8	.0	.0	65.9
30.8	8.1	.0	6.3	1.9	.0	.0	59.1
27.7	8.1	3.4	6.3	6.6	14.3	.9	68.2

POS MATCHED WITH SURVEY DATA

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D TSK TITLES

306	316	362	362	362	918
52	50F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)
27.3	8.1	.0	12.5	8.5	23.8
21.2	9.9	.0	6.3	10.4	23.8
16.7	8.7	3.4	.0	1.9	.0
15.2	8.1	.0	.0	7.5	19.0
10.6	8.7	.0	.0	4.7	4.8
					.0
					45.5

11C IV 4. TIME CONSTANTS IN 353 6/2

111 IV 4A. GIVEN A SERIES RC CIRCUIT, SPECIFIED TIME, COMPONENT VALUES AND A UNIVERSAL TIME CONSTANT CHART, DETERMINE THE PERCENT OF CHARGE AND DISCHARGE OF THE CAPACITOR FOR TWO OF THREE PROBLEMS. MEAS: PC 2/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
D 227 D2-2 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OP DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)?

D 230 D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS?

D 228 D2-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?
D 229 D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS?

D 231 D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES?

112 IV 4B. GIVEN A SERIES RL CIRCUIT, SPECIFIED TIME, COMPONENT VALUES AND A UNIVERSAL TIME CONSTANT CHART, DETERMINE THE PERCENT OF CURRENT BUILD-UP AND THE PERCENT OF CURRENT DECAY FOR TWO OF THREE PROBLEMS. MEAS: PC 2/0

D 230 D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS?

D 228 D2-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?

67.0	83.9	13.8	81.3	73.6	76.2	46.2	97.7
10.6	3.7	.0	.0	3.8	.0	.9	34.1

6.1	3.7	.0	.0	.9	.0	.0	29.5
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4.5	3.7	3.4	.0	.9	.0	.9	22.7
4.5	3.1	.0	.0	.9	.0	.9	22.7

3.0	4.3	.0	.0	.9	.0	.0	22.7
-----	-----	----	----	----	----	----	------

6.1	3.7	.0	.0	.9	.0	.0	29.5
-----	-----	----	----	----	----	----	------

4.5	3.7	3.4	.0	.9	.0	.9	22.7
-----	-----	-----	----	----	----	----	------

POI MATCHED WITH SURVEY DATA

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O TSK TITLES

C 229 D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT
CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR
RC OR L² CIRCUITS?
D 232 D2-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT
IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER
FIVE (5) TIME CONSTANTS?
D 231 D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND
COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC
TIMES?

113 IV 4C. GIVEN THE WAVESHAPES PRODUCED BY A SERIES RC CIRCUIT
HAVING A SHORT, LONG OR MEDIUM TIME CONSTANT, CORRECTLY
MATCH AT LEAST FOUR OF THE SIX WAVESHAPES OF THEIR
DESCRIPTION. MEAS: PC 2/0

N 839 N3-7 DO YOU USE OR REFER TO INTEGRATING CIRCUITS?
N 838 N3-6 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?
N 840 N3-8 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME
CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT?
N 841 N3-9 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS
DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT
AND OUTPUT CONFIGURATION?

114 IV 5. MULTIVIBRATORS 9.5/2

115 IV 5A. GIVEN A SCHEMATIC DIAGRAM OF AN ASTABLE
MULTIVIBRATOR, MATCH AT LEAST TWO OF THE THREE COMPONENTS/
NETWORKS THAT COMPRISE THE FORWARD BIAS NETWORK, OUTPUT
PULSE WIDTH, AND PULSE RECURRENCE FREQUENCY.
MEAS: PC 1.5/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
I 534 I1-6 DO YOU WORK WITH ASTABLE (FREE RUNNING)
MULTIVIBRATORS?
I 531 I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC
NETWORK FREQUENCY DETERMINING DEVICES (FDD)?
N 835 N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?
N 842 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE
CIRCUITS?
N 834 N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME
AND FALL TIME)?

706	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
#M4	(M)	(M)	(M)	(M)	(M)	(M)	(M)
4.5	3.1	.0	.0	.9	.0	.9	22.7
4.5	3.1	.0	.0	1.9	.0	.0	29.5
3.0	4.3	.0	.0	.9	.0	.0	22.7
39.4	11.2	.0	6.3	1.9	.0	.0	63.6
28.8	7.5	.0	.0	1.9	.0	.0	59.1
16.7	9.3	.0	6.3	.0	.0	.0	40.9
15.2	5.0	.0	.0	.0	.0	.0	34.1
87.9	83.9	13.8	81.3	73.6	76.2	48.2	97.7
60.6	21.1	.0	6.3	1.9	4.8	.5	81.8
43.9	18.0	.0	6.3	.9	9.5	.9	68.2
34.8	16.8	.0	.0	2.8	.0	.0	63.6
33.3	18.6	.0	6.3	.0	.0	.0	69.2
31.8	15.5	.0	.0	1.9	.0	.0	59.1

PGI PATCHED WITH SURVEY DATA

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D TSK TITLES

M 505 M3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?

M 506 M3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)?

N 836 M3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)?

N 837 M3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)?

N 843 M3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?

116 IV 5B. GIVEN AN ASTABLE MULTIVIBRATOR TRAINER, A MULTIMETER AND AN OSCILLOSCOPE, CONFIGURE TRAINER AND DETERMINE THE EFFECT ON OUTPUT PULSE WIDTH AND PULSE RECURRENCE FREQUENCY WHEN COMPONENT VALUES IN THE PC FEEDBACK NETWORKS ARE INCREASED AND DECREASED. ACCURACY WITHIN + OR - TWENTY PERCENT IS REQUIRED. MEAS: PC 2.5/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
I 534 I1-6 DO YOU WORK WITH ASTABLE (FPEE RUNNING) MULTIVIBRATORS?

I 531 I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORK FREQUENCY DETERMINING DEVICES (FDD)?

N 835 M3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?

N 842 M3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE CIRCUITS?

N 834 M3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?

M 505 M3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR REGENERATIVE)?

N 836 M3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)?

N 837 M3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)?

N 843 M3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?

117 IV 5C. GIVEN A SCHEMATIC DIAGRAM OF A MONOSTABLE MULTIVIBRATOR, MATCH AT LEAST TWO OF THE THREE COMPONENTS/ NETWORKS THAT COMPRISE THE FORWARD BIAS NETWORK, PULSE WIDTH AND OUTPUT FREQUENCY. MEAS: PC 2/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?

I 534 I1-7 DO YOU WORK WITH ASTABLE (ONE SHOT) MULTIVIBRATORS?

N 835 M3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?

N 842 M3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?

306	316	326	336	346	356	366	376	386	396
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60
51	52	53	54	55	56	57	58	59	60

87.0	83.9	13.8	81.3	73.6	76.2	48.2	97.7
60.6	21.1	.0	6.3	1.9	4.8	.9	81.8
47.0	18.0	.0	6.3	.9	9.5	.9	68.2
34.8	16.8	.0	.0	2.8	.0	.0	63.6
33.3	18.6	.0	6.3	.0	.0	.0	68.2
31.8	15.5	.0	.0	1.9	.0	.0	59.1
27.7	8.1	3.4	6.3	6.6	14.3	.9	68.2
19.7	11.8	.0	.0	2.8	.0	.0	54.5
18.2	9.3	3.4	.0	2.8	.0	.0	54.5
9.1	7.5	.0	.0	.0	.0	.0	52.3

87.0	83.9	13.8	81.3	73.6	76.2	48.2	97.7
67.6	23.6	.0	6.3	.9	4.8	.9	79.5
34.8	16.8	.0	.0	2.8	.0	.0	63.6
31.4	15.5	.0	.0	1.9	.0	.0	59.1

POI MATCHED WITH SURVEY DATA

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O TSM TITLES

H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR
REGENERATIVE)? 27.3 8.1 3.4 6.3 6.6 14.3 .9 68.2
N 836 H3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)? 19.7 11.8 .0 2.8 .0 .0 54.5
N 837 H3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY 18.2 9.3 3.4 .0 2.8 .0 .0 54.5
(PRF)?
N 843 H3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID
STATE CIRCUITS? 9.1 7.5 .0 .0 .0 .0 .0 52.3

118 IV 50. GIVEN A MONOSTABLE MULTIVIBRATOR TRAINER, A
MULTIMETER AND AN OSCILLOSCOPE, CONFIGURE TRAINER AND
DETERMINE THE EFFECT ON THE OUTPUT FREQUENCY WHEN RC
NETWORK COMPONENT VALUES AND INPUT TRIGGER FREQUENCY
ARE CHANGED. ACCURACY WITHIN + OR - TWENTY PERCENT IS
REQUIRED. MEAS: PC 1.5/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
I 535 I1-7 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?
N 835 H3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)? 87.9 63.9 13.8 81.3 73.6 76.2 48.2 97.7
N 834 H3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME
AND FALL TIME)? 63.6 23.6 .0 6.3 .9 4.8 .9 79.5
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR
REGENERATIVE)? 34.8 16.8 .0 .0 2.8 .0 .0 63.6
N 836 H3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)? 31.8 15.5 .0 .0 1.9 .0 .0 59.1
N 837 H3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY 27.3 8.1 3.4 6.3 6.6 14.3 .9 68.2
(PRF)? 19.7 11.8 .0 .0 2.8 .0 .0 54.5
18.2 9.3 3.4 .0 2.8 .0 .0 54.5

119 IV 50. GIVEN A BISTABLE MULTIVIBRATOR TRAINER, A MULTIMETER
AND AN OSCILLOSCOPE, CONFIGURE TRAINER AND DETERMINE THE
EFFECT ON THE OUTPUT PULSE WIDTH AND FREQUENCY WHEN THE
INPUT TRIGGER FREQUENCY IS INCREASED AND DECREASED.
ACCURACY WITHIN + OR - TWENTY PERCENT IS REQUIRED.
MEAS: PC 2/0

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
I 536 I1-8 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?
N 835 H3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)? 87.9 83.9 13.8 81.3 73.6 76.2 48.2 97.7
N 834 H3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME
AND FALL TIME)? 68.2 24.8 .0 6.3 .9 4.8 .0 79.5
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR
REGENERATIVE)? 34.8 16.8 .0 .0 2.8 .0 .0 63.6
N 836 H3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)? 31.8 15.5 .0 .0 1.9 .0 .0 59.1
N 837 H3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY 27.3 8.1 3.4 6.3 6.6 14.3 .9 68.2
(PRF)? 19.7 11.8 .0 .0 2.8 .0 .0 54.5
18.2 9.3 3.4 .0 2.8 .0 .0 54.5

POI MATCHED WITH SURVEY DATA

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106	306	316	316	362	362	362	918
51	52	50F	51	53	54	50	
44#	(M)	(M)	(M)	(M)	(M)	(M)	(M)

C TSK TITLES

120 IV 5F. GIVEN A SCHEMATIC DIAGRAM OF A SCHMITT TRIGGER CIRCUIT AND A LIST OF STATEMENTS, MATCH THE STATEMENT(S) THAT DESCRIBE(S) THE FUNCTION OF THE CIRCUIT AND CIRCUIT COMPONENTS CORRECTLY THREE OUT OF FOUR TIMES. MEAS: PC Q/2

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?
P1184 R2-2 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS?
Q1185 R2-3 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS?

121 V. SOLID STATE WAVESHAPING CIRCUITS AND SOLDERING 38 HRS TT

122 V 1. PULSED AND BLOCKING OSCILLATORS 4/1

123 V 1A. GIVEN THE SCHEMATIC DIAGRAM OF FOUR PULSED OSCILLATORS, WITH AN INPUT GATE WAVEFORM, MATCH AT LEAST THREE OUTPUTS WITH ITS CORRECT WAVEFORM. MEAS: PC 2/0

M 754 M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?
M 525 H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?
M 755 M1-4 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?
M 527 H3-31 DO YOU WORK WITH BURST GENERATORS?
M 528 H3-31 DO YOU WORK WITH BLOCKED OSCILLATORS?

124 V 1B. GIVEN A TRANSISTOR BLOCKING OSCILLATOR TRAINER, MULTIMETER AND OSCILLOSCOPE, DETERMINE THE OUTPUT PULSE WIDTH, CUTOFF TIME AND PULSE RECURRENT TIME WITHIN + OR - TWENTY PERCENT ACCURACY WITH ASSISTANCE. MEAS: PC 2/0

M 757 M1-6 DO YOU USE OR REFER TO RISE TIME?
M 758 M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?
C 141 R2-16 DO YOU WORK WITH CAPACITABLE COPE TRANSFORMERS?
M 529 H3-31 DO YOU WORK WITH BLOCKING OSCILLATORS?

125 V 1C. GIVEN A SCHEMATIC DIAGRAM OF A TRANSISTOR BLOCKING OSCILLATOR, AND A LIST OF STATEMENTS, DETERMINE TWO OF THREE FACTORS. MEAS: PC 0/5

87.9	83.9	13.8	81.3	73.6	76.2	49.2	97.7
62.1	39.8	.0	12.5	3.8	4.8	.0	40.9
62.1	35.4	.0	12.5	3.8	4.8	.0	40.9

37.9	14.9	.0	12.5	1.9	4.8	.9	72.7
31.8	15.5	3.4	6.3	10.4	4.8	.0	65.9
15.2	5.6	.0	6.3	.9	.0	.0	38.6
2.0	2.5	.0	6.3	1.9	.0	.0	34.1
1.5	1.9	.0	6.3	.9	.0	.0	22.7

33.3	1	.0	50.0	.9	.0	.0	68.2
21.2	14.3	.0	50.0	.9	.0	.0	56.8
3.0	4.2	.0	25.0	2.8	.0	.0	36.4
3.0	3.7	.0	6.3	1.9	.0	.0	43.2

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704	306	316	362	362	362	916
51	52	50F	51	53	54	50
***	(M)	(M)	(M)	(M)	(M)	(M)

D TSM TITLES

124 V 2. SAWTOOTH AND TRAPEZOIDAL GENERATORS 4/1

127 V 2A. GIVEN A TRANSISTOR SAWTOOTH WAVE GENERATOR TRAINER, MULTIMETER AND OSCILLOSCOPE, SET UP TRAINER AND DETERMINE THE EFFECT ON THE OUTPUT WAVEFORM AMPLITUDE AND LINEARITY WHEN THE RC NETWORK VALUES ARE CHANGED. SEVENTY-FIVE PERCENT ACCURACY IS REQUIRED WITH ASSISTANCE. MEAS: PC 2/0

H 456 H1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS?
F 339 F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?
M 752 M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?
M 759 M1-8 DO YOU USE OR REFER TO SWEEP TIME?
M 757 M1-6 DO YOU USE OR REFER TO RISE TIME?
M 761 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?
M 758 M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?
N 844 N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?
M 760 M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?
M 762 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS?
M 763 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS?

62.1	25.5	.0	31.3	4.7	4.8	.9	93.2
42.4	31.1	.0	25.0	12.3	9.5	.9	77.3
42.4	12.4	.0	12.5	.0	.0	.0	75.0
39.4	19.3	.0	43.8	3.8	.0	.0	77.3
33.3	14.9	.0	50.0	.9	.0	.0	68.2
22.7	13.0	.0	12.5	1.9	.0	.0	56.6
21.2	14.3	.0	50.0	.9	.0	.0	56.8
21.2	9.9	.0	6.3	.0	.0	.0	65.9
16.7	11.2	.0	6.3	1.9	.0	.0	56.8
16.7	7.5	.0	6.3	1.9	.0	.0	45.5
15.2	6.8	.0	6.3	1.9	.0	.0	43.2

128 V 2B. GIVEN A SCHEMATIC DIAGRAM OF A TRANSISTOR SAWTOOTH GENERATOR MATCH LISTED TROUBLES TO THEIR SYMPTOMS. SEVENTY-FIVE PERCENT ACCURACY IS REQUIRED. MEAS: PC 0/1

M 752 M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TYPING CIRCUITS?
M 759 M1-8 DO YOU USE OR REFER TO SWEEP TIME?
M 757 M1-6 DO YOU USE OR REFER TO RISE TIME?
M 751 M3-19 DO YOU TROUBLESHOOT TO HAVE GENERATING OR SHAPING CIRCUIT COMPONENTS?
M 761 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?
M 758 M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?
N 844 N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?
M 760 M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?

42.4	12.4	.0	12.5	.0	.0	.0	75.7
39.4	19.3	.0	43.8	3.8	.0	.0	77.3
33.3	14.9	.0	50.0	.9	.0	.0	68.2
30.3	10.6	.0	.0	.9	.0	.0	59.1
22.7	13.0	.0	12.5	1.9	.0	.0	56.8
21.2	14.3	.0	50.0	.9	.0	.0	56.8
21.2	9.9	.0	6.7	.0	.0	.0	65.9
16.7	11.2	.0	6.3	1.9	.0	.0	56.8

POI MATCHED WITH SURVEY DATA

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O TSK TITLES

M 762 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH
WAVEFORMS?

M 763 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH
WAVEFORMS?

129 V 2C. GIVEN A TRANSISTOR TRAPEZOIDAL WAVE GENERATOR TRAINER
MULTIMETER AND OSCILLOSCOPE, DETERMINE THE EFFECT ON THE
OUTPUT WAVEFORM AMPLITUDE, JUMP VOLTAGE, SLOPE VOLTAGE AND
LINEARITY WHEN THE PC NETWORK VALUES ARE CHANGED. SEVENTY-
FIVE PERCENT ACCURACY IS REQUIRED WITH ASSISTANCE.

MEAS: PC 2/0

F 339 F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR
PATTERNS?

M 759 M1-8 DO YOU USE OR REFER TO SWEEP TIME?

M 757 M1-6 DO YOU USE OR REFER TO RISE TIME?

M 758 M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?

M 760 M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH
WAVEFORMS?

M 753 M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING
CIRCUITS?

N 845 M3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID
STATE CIRCUITS?

130 V 3. LIMITERS AND CLAMPERS

10/2

131 V 3A. GIVEN THE SCHEMATIC DIAGRAMS AND INPUT WAVEFORMS OF
SERIES AND SHUNT LIMITERS WITH OR WITHOUT BIAS, MATCH THE
NAME AND OUTPUT TO THE SCHEMATIC. SIXTY PERCENT ACCURACY
IS REQUIRED. MEAS: PC 2/0

I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?

I 542 I2-3 DO YOU WORK WITH SHUNT DIODE LIMITERS?

I 543 I2-4 DO YOU WORK WITH LIMITERS WITH BIAS?

306	306	316	362	362	362	918
51	52	50F	51	53	54	50
H	(M)	(M)	(M)	(M)	(M)	(M)
14.7	7.5	.0	6.3	1.9	.0	45.5
15.2	6.8	.0	6.3	1.9	.0	43.2

42.4	31.1	.0	25.0	12.3	9.5	.9	77.3
39.4	19.3	.0	43.8	3.8	.0	.0	77.3
33.3	14.9	.0	50.0	.9	.0	.0	68.2
21.2	14.3	.0	50.0	.9	.0	.0	56.8
16.7	11.2	.0	6.3	1.9	.0	.0	56.8
15.2	5.6	.0	6.3	.9	.0	.0	54.5
7.6	7.5	.0	.0	.0	.0	.0	63.6

8.1	11.2	.0	.0	.9	.0	.0	66.2
8.1	12.4	3.4	.0	.9	.0	.0	66.2
7.6	10.6	.0	.0	.9	.0	.0	54.5

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	306	306	316	316	362	362	362	918
51	52	50F	(M)	(M)	51	53	54	50
PHK	(M)				(M)	(M)	(M)	(M)

D TSK TITLES

132 V 39. GIVEN A DIODE LIMITER TRAINER, MULTIMETER AND OSCILLOSCOPE SET UP THE TRAINER AND DETERMINE THE EFFECTS ON THE OUTPUT WAVEFORM WHEN THE DIODE IS MOVED OR REVERSED, OR WHEN BIAS IS CHANGED ON A DOUBLE DIODE LIMITER. SEVENTY-FIVE PERCENT ACCURACY IS REQUIRED WITH ASSISTANCE. MEAS: PC 2/0

I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?
I 542 I2-3 DO YOU WORK WITH SHUNT DIODE LIMITERS?
I 543 I2-4 DO YOU WORK WITH LIMITERS WITH BIAS?

133 V 3C. GIVEN AN MPN AND PNP TRANSISTOR LIMITER AND THREE OUTPUT WAVEFORMS FROM EACH, MATCH AT LEAST FOUR OF THE SIX OUTPUT WAVEFORMS TO THEIR PROPER IDENTITY. MEAS: PC 0/2

I 545 I2-6 DO YOU WORK WITH TRANSISTOR LIMITERS?

134 V 3D. GIVEN THE SCHEMATIC DIAGRAMS AND INPUT WAVEFORMS OF POSITIVE OR NEGATIVE CLAMPERS WITH OR WITHOUT BIAS MATCH THE NAME AND OUTPUT TO THE SCHEMATIC. SIXTY PERCENT ACCURACY IS REQUIRED. MEAS: PC 3/0

I 547 I2-8 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS?
I 548 I2-9 DO YOU WORK WITH BIAS DIODE CLAMPING CIRCUITS?

135 V 3E. GIVEN A DIODE CLAMPER TRAINER, MULTIMETER AND OSCILLOSCOPE SET UP THE TRAINER AND DETERMINE THE EFFECTS ON THE OUTPUT WAVEFORM WHEN THE DIODE IS REVERSED OR WHEN THE BIAS IS CHANGED. SEVENTY-FIVE PERCENT ACCURACY IS REQUIRED WITH ASSISTANCE. MEAS: PC 3/0

I 547 I2-8 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS?
I 548 I2-9 DO YOU WORK WITH BIAS DIODE CLAMPING CIRCUITS?

136 V 4. SOLDERING TECHNIQUES 9.5/4

	9.1	11.2	.0	.9	.0	.0	.0	68.2
9.1	12.4	3.4	.0	.9	.0	.0	.0	68.2
7.6	10.6	.0	.9	.9	.0	.0	.0	54.5

	15.2	11.8	3.4	.0	.9	4.8	.0	65.9
19.7	8.7	.0	.0	.0	.0	.0	.0	61.4
13.6	6.2	.0	.0	.9	.0	.0	.0	56.8

	19.7	8.7	.0	.0	.0	.0	.0	61.4
13.6	6.2	.0	.0	.9	.0	.0	.0	56.8

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306	306	316	316	362	362	342	918
51	52	50F	52F	51	53	54	50
M	(H)	(H)	(H)	(M)	(P)	(M)	(M)

O TSK TITLES

137 V 4A. GIVEN A LIST OF STATEMENTS PERTAINING TO SOLDERING PROCEDURES, SELECT THE STATEMENT(S) THAT DESCRIBE(S) THE USE OF TOOLS AND MATERIALS, TYPE OF SOLDER AND FLUX USED IN ELECTRONIC WORK, AND THE CHARACTERISTICS OF PROPERLY SOLDERED CONNECTION. MUST ANSWER 9 OF 14 CORRECTLY.
MEAS: PC 1/2

E 264 E2-2 DO YOU SOLDER CONNECTIONS?
E 265 E2-3 DO YOU DESOLDER CONNECTIONS?
E 267 E2-5 DO YOU INSPECT SOLDERED CONNECTIONS?
E 271 E2-9 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?
E 271 E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?
E 272 E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?
E 268 E2-6 DO YOU CLEAN OR TIN CONNECTIONS?
E 269 E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?

138 V 4B. GIVEN THE TOOLS AND MATERIALS, SOLDER CONNECTIONS TO SLOTTED AND TURRET TERMINALS IN ACCORDANCE WITH TO 00-25-234. ACCEPTABLE QUALITY OF WORK IS REQUIRED.
MEAS: PC 2/0

E 264 E2-2 DO YOU SOLDER CONNECTIONS?
E 270 E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?
E 271 E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?
E 272 E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?
E 268 E2-6 DO YOU CLEAN OR TIN CONNECTIONS?
E 269 E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?

139 V 4C. GIVEN THE TOOLS AND MATERIALS, DESOLDER CONNECTIONS FROM SLOTTED AND TURRET TERMINALS IN ACCORDANCE WITH TO 00-25-234. ACCEPTABLE QUALITY OF WORK IS REQUIRED.
MEAS: PC 3/0

E 265 E2-3 DO YOU DESOLDER CONNECTIONS?

140 V 4D. GIVEN THE TOOLS AND MATERIALS, SOLDER CONNECTIONS ON PRINTED CIRCUIT BOARDS IN ACCORDANCE WITH TO 00-25-234. ACCEPTABLE QUALITY OF WORK IS REQUIRED. MEAS: PC 2.5/0

E 264 E2-2 DO YOU SOLDER CONNECTIONS?

87.9	88.2	.0	81.3	84.0	81.0	86.0	97.7
87.9	88.2	.0	81.3	85.8	81.0	83.3	97.7
87.9	87.6	.0	81.3	85.8	81.0	79.8	95.5
87.9	80.7	3.4	81.3	38.7	57.1	21.1	95.5
87.9	85.7	.0	81.3	69.8	81.0	32.5	97.7
87.9	79.5	.0	75.0	48.1	71.4	22.8	95.5
86.4	85.7	.0	81.3	83.0	81.0	78.9	95.5
83.3	81.4	.0	81.3	79.2	71.4	80.7	90.9

87.9	88.2	.0	81.3	84.0	81.0	86.0	97.7
87.9	80.7	3.4	81.3	38.7	57.1	21.1	95.5
87.9	85.7	.0	81.3	69.8	81.0	32.5	97.7
87.9	79.5	.0	75.0	48.1	71.4	22.8	95.5
86.4	85.7	.0	81.3	33.0	81.0	78.9	95.5
83.3	81.4	.0	81.3	79.2	71.4	80.7	90.9

87.9	88.2	.0	81.3	65.8	81.0	83.3	97.7
------	------	----	------	------	------	------	------

87.9	88.2	.0	81.3	84.0	81.0	86.0	97.7
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D TSK TITLES

E 270 E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?
E 271 E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?
E 272 E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?
E 268 E2-6 DO YOU CLEAN OR TIN CONNECTIONS?
E 269 E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?

141 V ME. GIVEN THE TOOLS AND MATERIALS, DESOLDER CONNECTIONS FROM PRINTED CIRCUIT BOARDS IN ACCORDANCE WITH TO 00-25-234. ACCEPTABLE QUALITY OF WORK IS REQUIRED.
MEAS: PC 1/0

E 265 E2-3 DO YOU DESOLDER CONNECTIONS?

142 VI. DIGITAL TECHNIQUES 38 HRS TT

143 VI 1. NUMBERING SYSTEMS 6/2

144 VI 1A. CONVERT TWO OUT OF THREE WHOLE NUMBERS FROM DECIMAL, BINARY, OCTAL AND HEXADECIMAL TO THEIR EQUIVALENT IN THE OTHER NUMBERING SYSTEMS. MEAS: PC 2/0

K 666 K3-7 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?
K 661 K3-2 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?

U1311 U1-8 DO YOU USE OR REFER TO BINARY SYSTEMS?
K 663 K3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?
K 667 K3-8 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?
K 660 K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?

K 664 K3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?
U1305 U1-2 DO YOU USE OR REFER TO DECIMAL SYSTEMS?
K 662 K3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?

U1306 U1-3 DO YOU USE OR REFER TO OCTAL SYSTEMS?
K 669 K3-10 DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?

K 668 K3-9 DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?

306	306	316	316	362	362	362	362	919
51	52	50F	52F	51	53	54	54	50
*H#	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
67.0	80.7	3.4	81.3	38.7	57.1	21.1	95.5	
87.0	85.7	.0	81.3	69.8	81.0	32.5	97.7	
87.0	79.5	.0	75.0	48.1	71.4	22.8	95.5	
86.4	85.7	.0	81.3	83.0	81.0	78.9	95.5	
83.3	81.4	.0	81.3	79.2	71.4	86.7	90.9	
87.0	88.2	.0	81.3	85.8	91.0	83.3	97.7	
53.0	13.7	6.9	56.3	7.5	4.8	1.8	59.1	
48.5	13.7	13.8	62.5	6.6	9.5	2.6	61.4	
34.8	3.7	13.8	12.5	5.7	.0	.0	27.3	
31.3	6.2	51.7	50.0	2.8	4.8	.9	40.9	
33.3	6.8	20.7	37.5	3.8	.0	.0	40.9	
31.8	6.8	44.8	50.0	4.7	.0	.9	40.9	
30.3	6.2	10.3	41.8	2.8	.0	.9	43.2	
21.2	1.9	10.3	6.3	4.7	.0	.0	25.0	
18.2	5.6	3.4	50.0	5.7	.0	.9	36.4	
18.2	.0	17.2	.0	3.8	.0	.0	22.7	
15.2	5.6	3.4	62.5	3.8	.0	.0	38.6	
13.6	5.6	.0	62.5	4.7	.0	.0	38.6	

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D TSM TITLES

U1306 U1-5 DO YOU USE OR REFER TO HEXADECIMAL SYSTEMS?
K 665 K3-6 DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?
K 670 K3-11 DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?
K 671 K3-12 DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?

145 VI 1B. SOLVE TWO OUT OF THREE BINARY ADDITION PROBLEMS.
MEAS: PC 1/0

K 672 K3-13 DO YOU ADD BINARY NUMBERS?

146 VI 1C. SOLVE TWO OUT OF THREE BINARY SUBTRACTION PROBLEMS.
MEAS: PC 1/0

K 674 K3-15 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT
SUBTRACTION METHOD?
K 673 K3-14 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-
CARRY METHOD?

147 VI 1D. SOLVE TWO OUT OF THREE OCTAL ADDITION PROBLEMS.
MEAS: PC 1/0

K 675 K3-16 DO YOU ADD OCTAL NUMBERS?

148 VI 1E. SOLVE TWO OUT OF THREE OCTAL SUBTRACTION PROBLEMS.
MEAS: PC 1/0

K 676 K3-17 DO YOU SUBTRACT OCTAL NUMBERS?

149 VI 1F. SOLVE TWO OUT OF THREE BINARY MULTIPLICATION
PROBLEMS. MEAS: PC 0/1

K 680 K3-21 DO YOU MULTIPLY BINARY NUMBERS?

150 VI 1G. SOLVE TWO OUT OF THREE BINARY DIVISION PROBLEMS.
MEAS: PC 0/1

K 679 K3-20 DO YOU DIVIDE BINARY NUMBERS?

U06	306	316	316	362	362	919
51	52	50F	51	53	54	50
*MM	(M)	(M)	(M)	(M)	(M)	(M)
17.6	1.2	.0	25.0	3.8	.0	25.0
12.1	5.0	.0	50.0	1.9	.0	26.4
12.1	5.0	3.4	50.0	1.9	.0	36.4
12.1	5.6	.0	62.5	5.7	.0	38.6

47.9	17.4	10.3	50.0	6.6	9.5	4.4	61.4
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37.9	13.0	.0	43.8	3.8	4.8	4.4	50.0
27.3	11.8	.0	25.0	2.8	.0	1.6	45.5

22.7	6.8	24.1	31.3	1.9	.0	1.8	36.4
------	-----	------	------	-----	----	-----	------

21.2	6.8	17.2	31.3	1.9	.0	1.8	36.4
------	-----	------	------	-----	----	-----	------

27.3	8.1	.0	31.3	2.8	4.8	4.4	36.4
------	-----	----	------	-----	-----	-----	------

27.3	8.7	.0	25.0	2.8	4.8	4.4	36.4
------	-----	----	------	-----	-----	-----	------

306 306 316 362 362 362 918
51 52 50F 51 53 54 50
#M* (M) (M) (M) (M) (M)

D YSM TITLES

151 VI 2. LOGIC FUNCTIONS AND BOOLEAN EQUATIONS 6/2

152 VI 2A. GIVE THE SCHEMATIC AND/OR LOGIC DIAGRAMS OF A DIODE AND, OR AND EXCLUSIVE OR GATES, CORRECTLY MATCH AT LEAST TWO OF THE THREE LOGIC SYMBOLS AND TWO OF THE THREE TRUTH TABLES WITH THEIR SCHEMATIC. MEAS: PC 2/0

L 694 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?
L 695 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?
L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?
L 697 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'EXCLUSIVE OR' GATES?
L 698 L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED 'AND' GATES?
L 699 L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?
L 691 L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?
L 692 L1-8 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?
L 693 L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?
L 666 L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?
L 688 L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?
L 689 L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS OR GATES?
L 687 L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?

153 VI 2B. GIVEN THE LOGIC CIRCUITS FOR NPN AND PNP, SERIES AND PARALLEL DIRECT COUPLED TRANSISTOR LOGIC CIRCUITS, COMPLETE A TRUTH TABLE, AND DRAW A LOGIC SYMBOL FOR EACH WITH A 75% ACCURACY. MEAS: PC 1/0

L 710 L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS?

7.6 5.0 .0 .9 .0 .0 .0 29.5

D TSK TITLES

306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
#M# (M) (M) (M) (M) (M) (M)

154 VI 2C. GIVEN A SCHEMATIC OF A CURRENT MODE LOGIC CIRCUIT,
CONSTRUCT THE TRUTH TABLE WITH AN ACCURACY OF 75%.
MEAS: PC 1/G

L 720 L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC
(CML) CIRCUITS?
L 726 L2-9 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE
LOGIC (CML) CIRCUITS?

155 VI 2D. GIVEN A LOGIC DIAGRAM, DEVELOP THE BOOLEAN EQUATION
(CONSISTING OF THREE TO SIX GATES) CORRECTLY THREE OUT OF
FIVE TIMES. MEAS: PC 2/G

L 701 L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?
L 727 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF
MORE THAN ONE GATE?
L 721 L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN
EQUATIONS?
L 725 L2-8 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT
COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES?

156 VI 3. LOGIC CIRCUITS 3/0

157 VI 3A. GIVEN THE LOGIC DIAGRAM OF A SERIAL HALF OR SERIAL
FULL ADDER, AND INPUT CONDITION, DETERMINE THE SUM AND
CARRY OUTPUTS WITH AN ACCURACY OF 75%. MEAS: PC 3/0

L 728 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL
HALF OR FULL ADDER LOGIC DIAGRAMS?

158 VI 3B. GIVEN THE LOGIC DIAGRAM OF A FOUR-BIT PARALLEL ADDER
TRACE DATA FLOW AND WRITE THE STATE OF EACH SUM AND CARRY
OUTPUT WITH AN ACCURACY OF 75%. MEAS: PC 3/0

L 729 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER
LOGIC DIAGRAMS?

22.7 8.7 .0 .0 .0 .0 .0 29.5

15.2 5.6 .0 .0 .9 .0 .0 22.7

68.2 8.7 .0 6.3 .9 .0 .0 25.0
36.4 16.8 6.9 18.8 .9 .0 .0 45.5
16.7 5.6 .0 .0 .9 .0 .0 27.3
15.2 8.1 3.4 6.3 1.9 .0 .0 31.8

7.6 5.0 .0 6.3 .9 .0 .0 15.9
7.6 5.6 .0 12.5 .9 .0 .0 20.5

204 306 316 362 362 362 919
51 52 50F 51 53 54 50
M (M) (M) (M) (M) (M)

D TSK TITLES

159 VI 3C. GIVE THE SCHEMATIC DIAGRAM OF ANY ONE OF THE
FOLLOWING NAMED LOGIC CIRCUITS AND A LIST OF STATEMENTS
THAT DESCRIBES THEIR APPLICATION IN DIGITAL CIRCUITS,
MATCH AT LEAST THREE OF THE FOUR CIRCUITS WITH ITS
APPLICATION: ASTABLE, MONOSTABLE AND BISTABLE
MULTIVIBRATOR; SCHMITT TRIGGER CIRCUIT. MEAS: PC 2/0

L 704 L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC
DIAGRAMS? 81.8 31.7 13.8 14.8 1.9 19.0 .9 72.7
L 702 L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR
SYMBOLS? 75.8 29.8 3.4 31.3 .9 19.0 .0 72.7
L 703 L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR
SYMBOLS? 71.2 22.4 3.4 14.8 .9 9.5 .0 70.5
L 705 L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC
DIAGRAMS? 71.2 21.7 10.3 14.8 .9 9.5 .0 70.5
L 714 L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP
SCHEMATIC DIAGRAMS? 54.5 19.9 .0 12.5 .9 .0 .9 47.7
L 715 L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-
FLOP SCHEMATIC DIAGRAMS? 53.0 18.6 .0 12.5 .9 4.8 .9 45.5
L 708 L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC
SYMBOLS? 48.5 17.4 .0 12.5 .9 .0 .0 45.5
L 716 L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-
FLOP SCHEMATIC DIAGRAMS? 48.5 16.1 .0 12.5 .9 .0 .0 45.5
L 707 L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC
SYMBOLS? 45.5 17.4 .0 12.5 .0 .0 .0 45.5
I 537 I1-9 DO YOU WORK WITH P-S FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS? 16.7 9.3 .0 6.3 .9 4.8 .0 63.6

160 VI 3D. GIVEN THE LOGIC SYMBOL FOR A J-K FLIP-FLOP,
CONSTRUCT THE TRUTH WITH AN ACCURACY OF 75%. MEAS: PC C/2

I 536 I1-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS? 65.2 21.1 .0 6.3 .9 4.8 .0 81.8
L 706 L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES? 63.6 29.8 .0 14.8 1.9 14.3 .0 61.4
L 717 L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC
SYMBOLS? 47.0 16.1 .0 6.3 .9 .0 .0 45.5

161 VI 4. COUNTERS AND REGISTERS 7.5/2

POI MATCHED WITH SURVEY DATA

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D TSK TITLES

306 306 316 362 362 918
51 52 50F 51 53 54
*** (M) (M) (M) (M) (M) (M)

162 VI 4A. GIVEN THE LOGIC DIAGRAM OF A FOUR STAGE SERIAL UP-COUNTER OR DOWN-COUNTER HAVING COMPLEMENTED FLIP-FLOPS DETERMINE THE STATE OF THE FLIP-FLOPS AND WRITE THE BINARY COUNT AFTER A CLEAR OR SET PULSE IS APPLIED AND A GIVEN NUMBER OF CLOCK PULSES HAVE PASSED TO AN ACCURACY OF 75%. MEAS: PC 1.5/0

L 731 L3-2 DO YOU USE OR REFER TO UP-COUNTERS? 63.6 20.5 .0 25.0 4.7 14.3 .0 52.3
L 733 L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS? 63.6 20.5 .0 6.3 1.9 9.5 .0 40.9
L 732 L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS? 59.1 17.4 .0 18.9 1.9 9.5 .0 50.0
L 741 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS? 58.0 16.8 .0 12.5 .9 .0 9 47.7
L 738 L3-9 DO YOU USE OR REFER TO DOWN CLOCKS? 50.0 16.8 3.4 6.3 1.9 9.5 .0 52.3
L 742 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS? 50.0 14.9 .0 12.5 .9 .0 9 45.5

163 VI 4B. GIVEN THE LOGIC DIAGRAM OF A FOUR STAGE SERIAL UP-COUNTER OR DOWN-COUNTER HAVING COMPLEMENTED FLIP-FLOPS, DETERMINE THE STATE OF THE FLIP-FLOPS AND WRITE THE BINARY COUNT AFTER A CLEAR OR SET PULSE IS APPLIED AND A GIVEN NUMBER OF CLOCK PULSES HAVE PASSED TO AN ACCURACY OF 75%. MEAS: PC 1.5/0

L 731 L3-2 DO YOU USE OR REFER TO UP-COUNTERS? 63.6 20.5 .0 25.0 4.7 14.3 .0 52.3
L 733 L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS? 63.6 20.5 .0 6.3 1.9 9.5 .0 40.9
L 732 L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS? 59.1 17.4 .0 18.9 1.9 9.5 .0 50.0
L 734 L3-5 DO YOU USE OR REFER TO PARALLEL COUNTERS? 54.5 16.1 .0 6.3 .9 9.5 .0 38.6
L 741 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS? 53.0 16.8 .0 12.5 .9 .0 9 47.7
L 738 L3-9 DO YOU USE OR REFER TO DOWN CLOCKS? 50.0 16.8 3.4 6.3 1.9 9.5 .0 52.3
L 742 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS? 50.0 14.9 .0 12.5 .9 .0 9 45.5
L 744 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS? 27.3 8.1 .0 6.3 .9 .0 9 38.6

164 VI 4C. GIVEN THE LOGIC DIAGRAM OF A FOUR-STAGE RING COUNTER WRITE THE STATE OF EACH FLIP-FLOP AFTER A CLEAR PULSE AND A GIVEN NUMBER OF INPUT PULSES HAVE PASSES WITH AN ACCURACY OF 75%. MEAS: PC 1/0

L 738 L3-6 DO YOU USE OR REFER TO RING COUNTERS? 34.8 10.6 3.4 6.3 1.9 .0 .0 31.8
L 750 L3-21 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES? 34.8 11.2 .0 6.3 .9 .0 .0 31.8
L 748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS? 30.3 9.3 .0 6.3 .9 .0 9 29.5

POI MATCHED WITH SURVEY DATA

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O TSM TITLES

204 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
M (M) (M) (M) (M) (M) (M)

165 VI 4D. GIVEN THE LOGIC DIAGRAM OF A DECADE COUNTER,
CONSTRUCT THE TRUTH TABLE WITH AN ACCURACY OF 75%.
MEAS: PC 0/2

L 736 L3-7 DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?
L 749 L3-20 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF
DECADE COUNTERS?

21.2 8.7 .0 12.5 1.9 .0 .9 40.9
16.7 4.3 .0 6.3 .9 .0 .0 31.8

166 VI 4E. GIVEN THE LOGIC DIAGRAM OF A COUNT DETECT CIRCUIT,
CONNECT THE AND GATE CONNECTIONS TO THE FLIP-FLOPS TO
INDICATE A REQUIRED COUNT; ACCURACY OF TWO OUT OF THREE
TIMES. MEAS: PC 1.5/0

L 751 L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY
IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?
L 737 L3-8 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?

51.5 13.7 .0 6.3 1.9 .0 .0 40.9
42.4 13.7 3.4 12.5 .9 9.5 .9 45.5

167 VI 4F. GIVEN THE LOGIC DIAGRAM OF A SERIAL UP-COUNTER
(CONTAINING A SPECIFIED COUNT) FEEDING A PARALLEL STORAGE
REGISTER, TRACE DATA FLOW AND WRITE THE BINARY COUNT STORED
IN THE STORAGE REGISTER AFTER A READ-IN PULSE HAS PASSED;
ACCURACY OF THREE OUT OF FOUR CORRECT. MEAS: PC 1/0

Q1121 Q1-1 DO YOU USE OR REFER TO STORAGE REGISTERS?
Q1124 Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE
REGISTERS?
L 746 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
COUNTERS FEEDING STORAGE REGISTERS?

60.7 31.1 13.8 18.8 2.8 .0 .0 54.5
66.7 30.4 3.4 18.8 1.9 .0 .0 54.5
43.0 14.3 6.9 6.3 1.9 .0 .0 36.4

168 VI 4G. GIVEN THE LOGIC DIAGRAM OF A THREE-STAGE SHIFT
REGISTER CONTAINING A SPECIFIED COUNT, TRACE DATA FLOW AND
WRITE THE STATE OF EACH FLIP-FLOP AFTER A SPECIFIED NUMBER
SHIFT PULSES HAVE PASSED CORRECTLY THREE OUT OF FOUR TIMES.
MEAS: PC 1/0

Q1122 Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?
Q1125 Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF
SHIFT REGISTER CIRCUITS?
Q1127 Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT
REGISTERS?
Q1127 Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A
SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES
HAVE PASSED?

77.3 34.8 .0 18.8 2.8 4.8 .0 56.8
77.3 32.9 .0 18.8 .9 4.8 .9 54.5
72.7 33.5 3.4 18.8 1.9 .0 .0 54.5
72.7 27.3 .0 12.5 1.9 .0 .9 50.0

POI MATCHED WITH SURVEY DATA

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D TSK TITLES

306 306 316 362 362 362 918
51 52 50F 51 54 50
M (M) (M) (M) (M)

L 747 L3-18 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
SHIFT REGISTERS?

60.6 14.9 3.4 6.3 1.9 .0 .0 38.6

169 VII. INTEGRATED CIRCUITS/DEVICES 38 HRS TT

170 VII 1. INTEGRATED CIRCUITS 2/0

171 VII 1A. GIVEN A LIST OF NINE CHARACTERISTICS, CORRECTLY
SELECT AT LEAST SIX THAT APPLY TO INTEGRATED CIRCUITS.
MEAS: PC

H 458 H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS?

87.9 62.7 13.8 81.3 19.8 19.0 22.8 93.2

172 VII 2. BASIC COMPUTERS 2/2

173 VII 2A. GIVEN A LIST OF FIVE BASIC COMPUTER UNITS AND SEVEN
UNIT FUNCTIONS, CORRECTLY MATCH AT LEAST FIVE OF THE
FUNCTIONS WITH ITS UNITS. MEAS: PC 1/0

S1200 S1-13 DO YOU USE OR REFER TO TAPE READERS?
S1197 S1-3 DO YOU USE OR REFER TO PRINTERS?
S1201 S1-14 DO YOU USE OR REFER TO TAPE PUNCHES?
S1192 S1-5 DO YOU USE OR REFER TO CARD READERS/CARD PUNCHES?
S1189 S1-2 DO YOU USE OR REFER TO KEYBOARDS OR TELETYPEWRITERS?
S1191 S1-4 DO YOU USE OR REFER TO TAPE DRIVES (UNITS)?
S1339 U1-3A DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT
SECTIONS?

87.3 65.2 48.3 37.5 3.8 .0 .0 18.2
77.3 78.3 13.8 37.5 17.9 4.8 1.8 45.5
77.3 66.5 51.7 31.3 3.8 .0 .0 9.1
74.2 13.0 6.9 .0 4.7 .0 1.8 18.2
68.2 78.9 6.9 43.8 19.8 4.8 1.8 31.8
37.9 44.7 24.1 31.3 13.2 .0 .0 25.7
30.3 3.1 10.3 6.3 6.6 .0 .0 27.5

U133F U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT
SECTIONS?

28.8 3.1 10.3 6.3 7.5 .0 .0 20.5

U1337 U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER
CONTROL SECTIONS?

27.2 2.5 6.9 6.3 5.7 .0 .0 22.7

U1340 U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER
FUNCTION SECTIONS?

25.8 2.5 10.3 6.3 4.7 .0 .0 18.2

S1192 S1-6 DO YOU USE OR REFER TO VIDEO DISPLAYS (CRT'S)?

7.6 33.5 .0 31.3 18.9 4.8 .0 45.5

POI MATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM
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306	306	316	316	362	362	362	919
51	52	50F	52F	51	53	54	50
MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)

O TSK TITLES

174 VII 28. GIVEN A LIST OF FOUR MAGNETIC STORAGE DEVICES AND A LIST OF NINE FUNCTIONAL CHARACTERISTICS, CORRECTLY MATCH AT LEAST SIX OF THE CHARACTERISTICS TO THE CORRECT STORAGE DEVICE. MEAS: PC 1/0

Q1134 Q2-7 DO YOU USE OR REFER TO STORAGE CAPACITY OF MEMORY SYSTEMS?

Q1130 Q2-3 DO YOU USE OR REFER TO MAGNETIC CORES OF 9IMAGS?

Q1133 Q2-6 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OF MEMORY SYSTEMS?

Q1135 Q2-8 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS?

Q1131 Q2-4 DO YOU USE OR REFER TO MAGNETIC DRUMS?

Q1132 Q2-5 DO YOU USE OR REFER TO MAGNETIC TAPES?

Q1137 Q2-10 DO YOU USE OR REFER TO MAGNETIC DISKS?

59.1	13.0	13.8	6.3	4.7	.0	.9	25.0
54.5	5.0	3.4	.0	1.9	.0	.0	11.4
47.0	8.7	3.4	6.3	2.8	.0	.0	27.3
28.8	8.1	3.4	6.3	2.8	.0	.9	25.0
6.1	3.7	3.4	.0	2.8	.0	.0	11.4
6.1	15.5	3.4	.0	9.4	.0	.9	25.0
6.1	3.7	.0	18.8	1.9	.0	.0	20.5

175 VII 20. GIVEN A LIST OF FIVE BASIC COMPUTER TERMS, CORRECTLY MATCH THREE OF THEM WITH THEIR DEFINITIONS. MEAS: PC 0/2

Q1143 Q2-16 DO YOU USE OR REFER TO RANDOM ACCESS MEMORIES (RAM)?

Q1144 Q2-17 DO YOU USE OR REFER TO READ ONLY MEMORIES (ROM)?

Q1145 Q2-18 DO YOU USE OR REFER TO PROGRAMMABLE READ ONLY MEMORIES (PROM)?

45.5	18.0	17.2	6.3	5.7	.0	.9	36.4
13.6	18.6	10.3	6.3	4.7	.0	.9	34.1
7.6	10.6	3.4	12.5	2.8	.0	.0	36.4

176 VII 3. MICROPROCESSORS 3.5/0

177 VII 3A. GIVEN A LIST OF EIGHT CHARACTERISTICS CORRECTLY SELECT AT LEAST FIVE THAT APPLY TO MICROPROCESSORS. MEAS: PC 2/0

178 VII 3B. GIVEN A LIST OF SEVEN MAJOR MICROPROCESSOR SECTIONS CORRECTLY MATCH AT LEAST FIVE TO THEIR FUNCTION. MEAS: PC 1.5/0

27.3	18.0	.0	25.0	2.8	9.5	.0	95.5
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U1713 U1-10 DO YOU USE OR REFER TO DATA WORDS?
U1315 U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?
U1314 U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?
U1317 U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?
U1221 U1-17 DO YOU USE OR REFER TO CONTROL WORDS?

22.7	4.3	6.9	12.5	5.7	.0	.0	15.9
19.7	3.1	3.4	12.5	6.6	.0	.9	13.6
16.7	4.3	3.4	12.5	7.5	.0	.0	15.9
10.6	3.1	6.5	6.3	6.6	.0	.0	15.9
9.1	4.3	.0	18.8	4.7	.0	.0	13.6

POT MATCHED WITH SURVEY DATA

FCPRTE PAGE 293

306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
MH# (M) (M) (M) (M) (M)

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

D TSM TITLES

179 VII 4. COMBINATIONAL LOGIC CIRCUIT 14/4

180 VII 4A. GIVEN A LOGIC LAB TRAINER AND PRACTICAL DIGITAL ELECTRONICS LABORATORY WORKBOOK, TEST EQUIPMENT AND CIRCUIT COMPONENTS, SATISFACTORILY COMPLETE AT LEAST FOUR OF THE SEVEN EXPERIMENTS NUMBERED 3 THRU 9. MEAS: PC 14/0

181 VII 4B. GIVEN A SCHEMATIC OF THE TTL LOGIC ELEMENT CIRCUIT, COMPLETE THE TRUTH TABLE TO A 75 PERCENT ACCURACY. MEAS: PC 0/2

182 VII 4C. GIVEN A SCHEMATIC OF A TYPICAL INTEGRATED CIRCUIT DECODER (2-LINE-TO-4-LINE) AND A COMBINATION OF INPUTS, COMPLETE A TRUTH TABLE TO A 75 PERCENT ACCURACY. MEAS: PC 0/2

U136C U1-57 DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

183 VII 5. INTRODUCTION TO OPERATIONAL AMPLIFIERS 6/2

184 VII 5A. GIVEN FIVE SCHEMATIC DIAGRAMS AND THE NAMES OF THE CIRCUIT STAGES OF AN OPERATIONAL AMPLIFIER, CORRECTLY MATCH AT LEAST THREE OF THE CIRCUIT NAMES WITH THEIR SCHEMATIC DIAGRAMS. MEAS: PC 1.5/0

3 449 63-42 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?

3 450 13-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?

6.1 1.9 .0 .0 2.8 4.8 .0 22.7
24.7 3.7 .0 12.5 1.9 .0 .0 79.5
12.1 6.8 .0 18.0 1.9 .0 .0 81.8

POI MATCHED WITH SURVEY DATA

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OCCUPATIONAL ANALYSIS PROGRAM
USAFOWC (ATC) RANDOLPH AFB TX

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)

D TSK TITLES

185 VII 58. GIVEN THE SCHEMATIC DIAGRAM OR CIRCUIT TITLE OF THE FIVE OP-AMP SECTIONS AND A LIST OF FUNCTIONS AND CHARACTERISTICS, CORRECTLY MATCH AT LEAST FOUR OF THE SIX CHARACTERISTICS WITH THEIR SCHEMATIC OR CIRCUIT TITLE.
MEAS: PC 1/0

G 449 G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?
G 450 G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?

186 VII 5C. GIVEN FOUR INVERTING OPERATIONAL AMPLIFIERS, WITH RESISTIVE INPUTS TO A SUMMING JUNCTION, FEEDBACK RESISTOR AND INPUT VOLTAGES, SOLVE FOR THE CORRECT OUTPUT VOLTAGE AT LEAST THREE TIMES. MEAS: PC 0/2

G 452 G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS?

187 VII 5D. GIVEN FIVE OP-AMP SCHEMATIC SYMBOLS, ASSOCIATED EXTERNAL CIRCUITRY, AND INPUT AND OUTPUT WAVEFORMS, SELECT THE CORRECT OUTPUT WAVEFORM FOR AT LEAST THREE OF THE INPUT CONDITIONS. MEAS: PC 3.5/0

24.2	3.7	.0	12.5	1.9	.0	.0	79.5
12.1	6.8	.0	18.8	1.9	.0	.0	81.8
1.5	1.9	.0	.0	.9	.0	.0	45.5

O TASK TITLES

306 306 316 362 362 918
51 52 50F 51 53 50
M (M) (M) (M) (M) (M)

TASKS NOT REFERENCED

F 324 F3-1 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G1-1; IF YES, CONTINUE.
H 467 H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.
E 263 E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.
F 336 F3-13 DO YOU USE OSCILLOSCOPES TO OBSERVE DATA PATTERNS? H 469 H2-3 DO YOU CLEAN POWER SUPPLIES?
H 470 H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?
H 471 H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?
H 472 H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?
H 474 H2-8 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?
L 685 L1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.
G 383 G2-1 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM G3-1; IF YES, CONTINUE.
H 468 H2-2 DO YOU INSPECT POWER SUPPLIES?
A 26 A3-2 DO YOU INSPECT RESISTORS?
C 98 C1-2 DO YOU INSPECT CAPACITORS?
C 102 C1-6 DO YOU DISCHARGE CAPACITORS?
G 384 G2-2 DO YOU INSPECT TRANSISTORS?
E 273 E2-11 DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?
G 342 G1-1 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.
A 25 A3-1 DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES, CONTINUE.
C 97 C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1; IF YES, CONTINUE.
F 227 F3-4 DO YOU TROUBLESHOOT ELECTRONIC CIRCUITS USING OSCILLOSCOPES?
S1184 S1-1 DO YOU WORK WITH INPUT OR OUTPUT DEVICES ON YOUR PRESENT JOB? IF NO, GO TO ITEM S2-1; IF YES, CONTINUE.
F 277 F3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.
S 243 S1-2 DO YOU INSPECT DIODES?
H 460 H1-3 DO YOU USE OR REFER TO LED'S/LCD'S COMPONENTS?
E 270 E3-3 DO YOU CLEAN RELAYS?
E 243 E3-4 DO YOU INSPECT RELAYS?
E 287 E3-7 DO YOU REMOVE OR REPLACE RELAYS?
H 713 H2-3 DO YOU CLEAN OR LUBRICATE MOTORS?
H 782 H3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTORS?
E 264 E2-4 DO YOU PERFORM HIGH RELIABILITY SOLDERING?
F 241 F3-5 DO YOU TROUBLESHOOT RELAYS?

89.4 78.3 .0 81.3 37.7 71.4 7.9 95.5
80.4 79.5 86.2 81.3 45.3 81.0 86.8 93.2
86.4 83.9 6.9 75.0 76.4 81.0 78.9 97.7
86.4 62.7 .0 62.5 19.8 19.0 1.8 68.2
86.4 75.8 6.9 81.3 43.4 76.2 72.8 77.3
86.4 67.7 62.1 75.0 35.8 76.2 19.3 90.9
86.4 75.2 55.2 62.5 35.8 81.0 57.9 90.9
86.4 68.3 69.0 75.0 29.2 81.0 38.6 93.2
86.4 68.3 3.4 75.0 25.5 76.2 30.7 93.2
86.4 34.8 37.9 43.8 2.8 14.3 1.8 77.3
84.8 80.1 6.9 75.0 30.2 71.4 19.3 95.5
84.8 79.5 69.0 75.0 44.3 81.0 82.5 90.9
83.3 82.6 3.4 81.3 60.4 85.7 36.0 90.9
83.3 82.0 .0 81.3 56.6 76.2 33.3 93.2
83.3 71.4 .0 62.5 43.4 66.7 28.1 86.4
83.3 76.4 3.4 75.0 26.4 71.4 14.0 93.2
81.8 47.8 .0 43.8 21.7 38.1 10.5 93.2
81.8 70.2 3.4 75.0 47.2 66.7 11.4 93.2
80.3 78.3 17.2 62.5 68.9 71.4 43.0 77.3
80.3 75.8 17.2 75.0 62.3 57.1 40.4 93.2
80.3 76.4 .0 81.3 31.1 61.9 4.4 86.4
80.3 76.4 51.7 43.8 23.6 14.3 7.9 47.7
78.8 67.7 69.0 81.3 73.6 81.0 77.2 90.9
77.3 67.1 .0 75.0 39.6 66.7 9.6 93.2
77.3 46.6 20.7 68.8 16.9 19.0 22.8 95.5
75.8 55.3 .0 75.0 20.2 81.0 78.9 90.9
75.8 61.5 27.6 91.3 81.1 81.0 79.8 93.2
74.2 64.0 24.1 81.3 76.4 81.0 60.5 90.9
74.2 76.4 13.9 25.0 18.9 9.5 3.5 90.9
74.2 77.0 .0 25.0 12.3 9.5 7.0 90.9
72.7 61.5 .0 75.0 58.5 71.4 46.5 86.4
72.7 60.9 65.5 81.3 60.2 81.0 75.4 93.2

POI WATCHED WITH SURVEY DATA

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O TSK

TITLES

H 473 H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?
 J 611 J3-1 DO YOU WORK ON TRANSMITTERS OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.
 L 730 L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.
 M 778 M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM N1-1; IF YES, CONTINUE.
 M 779 M3-2 DO YOU INSPECT MOTORS?
 C 126 C2-1 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q3-1; IF YES, CONTINUE.
 Q112R Q2-1 DO YOU WORK WITH STORAGE DEVICES IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q3-1; IF YES, CONTINUE.
 C 127 C2-2 DO YOU INSPECT TRANSFORMERS?
 E 275 E2-13 DO YOU PERFORM CRIMPING IN LIEU OF SOLDERING?
 S1198 S1-11 DO YOU USE OR REFER TO TOGGLE OR PUSH BUTTON SWITCH INPUTS?
 B 64 B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?
 O 233 O3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.
 E 274 E2-12 DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?
 E 284 E3-8 DO YOU PERFORM TASKS ON CONTACTS OF RELAYS?
 J 614 J3-4 DO YOU PERFORM TASKS ON MODERN SYSTEMS STAGES?
 N 809 N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.
 S1206 S2-5 DO YOU WORK WITH PHOTOCELL (PHOTOCONDUCTIVE OR PHOTOVOLTAIC) PHOTO SENSITIVE DEVICES?
 M 781 M3-4 DO YOU OPERATE MOTORS?
 I 529 I1-1 DO YOU WORK WITH MULTIPLICATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM I2-1; IF YES, CONTINUE.
 M 784 M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?
 A 27 A3-3 DO YOU CLEAN RESISTORS?
 Q1126 Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?
 P1183 R2-1 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS? IF NO, GO TO ITEM R3-1; IF YES, CONTINUE.
 M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?
 Q1142 Z2-15 DO YOU USE OR REFER TO PAPER TAPES?
 L 699 L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "B" BARS?
 L 760 L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR "M" BARS?
 M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?
 S1195 S1-8 DO YOU USE OR REFER TO LED'S?
 S1202 S2-1 DO YOU WORK WITH PHOTODIODE PHOTO SENSITIVE DEVICES?
 F 330 F3-7 DO YOU USE OSCILLOSCOPES TO OBSERVE LISSAJOUS PATTERNS?

306 316 362 362 362 918
 52 52F 51 53 54 50
 M (M) (M) (M) (M) (M)

72.7 75.8 .0 62.5 28.3 71.4 83.2 90.9
 72.7 36.0 10.3 .0 26.4 23.8 22.8 18.2
 72.7 22.4 .0 25.0 4.7 9.5 .0 59.1
 72.7 77.0 51.7 25.0 19.8 19.0 10.5 88.6
 72.7 79.5 44.8 25.0 18.9 9.5 6.1 90.9
 71.2 67.7 27.6 75.0 28.3 57.1 24.6 93.2
 71.2 26.7 31.0 25.0 10.4 .0 .9 36.4
 60.7 67.7 6.9 69.8 26.4 66.7 21.9 95.5
 60.7 55.3 .0 81.3 46.2 38.1 50.9 64.1
 60.7 44.1 37.9 31.3 9.4 9.5 5.3 38.6
 68.2 49.1 34.5 75.0 68.9 71.4 25.4 84.1
 68.2 42.2 6.9 31.3 11.3 57.1 18.4 75.0
 68.2 31.1 .0 31.3 78.3 57.1 77.2 36.4
 68.2 51.6 10.3 81.3 81.1 81.0 76.3 93.2
 68.2 14.3 3.4 .0 15.1 .0 11.4 11.4
 68.2 73.3 86.2 75.0 67.0 66.7 62.3 88.6
 68.2 16.8 3.4 .0 1.9 .0 .0 79.5
 66.7 72.0 44.8 25.0 18.9 4.8 5.3 90.9
 65.2 24.2 .0 6.3 1.9 9.5 .9 84.1
 65.2 73.9 24.1 18.8 15.1 4.8 7.9 90.9
 63.6 62.7 3.4 68.8 41.5 66.7 15.8 72.7
 63.6 27.3 3.4 18.8 .9 .0 1.8 52.3
 63.6 42.2 .0 18.8 3.8 4.8 .0 43.2
 62.1 5.6 3.4 .0 3.8 .0 .0 31.9
 62.1 19.9 31.0 18.8 2.8 .0 .0 11.4
 60.6 4.3 .0 .0 1.9 .0 .0 13.6
 60.6 3.1 .0 .0 .9 .0 .0 13.6
 60.6 9.1 34.5 .0 6.6 .0 .0 40.9
 60.6 44.1 31.0 31.3 12.3 4.8 2.6 50.0
 60.6 13.0 .0 .0 1.9 .0 .0 79.5
 59.1 10.6 .0 18.8 6.6 9.5 .0 27.3

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PGI MATCHED WITH SURVEY DATA

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G 395 G2-13 DO YOU USE OF REFER TO TRANSISTOR SUBSTITUTION INFORMATION?
M 903 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?
Q1141 Q2-14 DO YOU USE OR REFER TO PUNCH CARDS?
Q1149 Q2-22 DO YOU CLEAN STORAGE DEVICES?
C 99 C1-3 DO YOU CLEAN CAPACITORS?
D 239 Q3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?
E 266 E3-12 DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?
F 121 F3-8 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.
L 713 L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?
M 604 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?
C 144 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?
D 237 D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?
M 408 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.
G1148 Q2-21 DO YOU INSPECT STORAGE DEVICES?
D 234 D3-2 DO YOU INSPECT FILTER CIRCUITS?
E 287 E3-11 DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?
C 103 C1-7 DO YOU MEASURE CAPACITORS?
C 123 C2-3 DO YOU CLEAN TRANSFORMERS?
Q1153 Q2-26 DO YOU REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS OF STORAGE DEVICES?
Q1154 Q2-27 DO YOU TRACE SIGNAL FLOW IN STORAGE DEVICES USING LOGIC DIAGRAMS OR SCHEMATICS?
E 294 E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?
L 739 L3-10 DO YOU USE OR REFER TO UP CLOCKS?
M 407 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?
G 407 G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.
M 783 M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?
Q1152 Q2-25 DO YOU TROUBLESHOOT MEMORY SYSTEM STORAGE DEVICES?
D 235 D3-3 DO YOU CLEAN FILTER CIRCUITS?
L 710 L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.
C 156 C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?
E 249 E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.
G 410 G3-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?
M 409 M3-2 DO YOU INSPECT OSCILLATORS?
Q1158 G3-1 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS OR ANALOG-TO-DIGITAL (A/D) CONVERTERS? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.

D TSK TITLES

		FCPR'S PAGE		297					
		306	316	316	362	362	362	918	
		51	52	52F	51	53	54	50	
		M	(M)	(M)	(M)	(M)	(M)	(M)	
G 395	G2-13 DO YOU USE OF REFER TO TRANSISTOR SUBSTITUTION INFORMATION?	50.1	44.7	.0	18.8	11.3	38.1	3.5	95.5
M 903	M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?	59.1	6.8	6.9	.0	6.6	.0	.0	40.9
Q1141	Q2-14 DO YOU USE OR REFER TO PUNCH CARDS?	50.1	5.6	3.4	.0	.9	.0	.0	20.5
Q1149	Q2-22 DO YOU CLEAN STORAGE DEVICES?	59.1	21.7	.0	12.5	9.4	.0	.9	25.0
C 99	C1-3 DO YOU CLEAN CAPACITORS?	57.6	64.6	.0	68.8	45.3	47.6	15.8	61.4
D 239	Q3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?	57.6	31.7	6.9	25.0	4.7	14.3	7.0	77.3
E 266	E3-12 DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?	57.6	45.3	3.4	68.8	32.1	61.9	54.4	77.3
F 121	F3-8 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.	57.6	46.0	.0	31.3	15.1	23.8	.9	84.1
L 713	L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	57.6	19.9	.0	25.0	.9	4.8	.9	61.4
M 604	M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?	57.6	7.5	37.9	.0	7.5	.0	.0	40.9
C 144	C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	56.1	60.2	3.4	62.5	25.5	47.6	11.4	93.2
D 237	D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?	56.1	29.8	.0	31.3	5.7	47.6	12.3	77.3
M 408	H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	56.1	17.4	6.9	25.0	30.2	71.4	6.1	72.7
G1148	Q2-21 DO YOU INSPECT STORAGE DEVICES?	56.1	22.4	13.8	18.8	8.5	.0	.9	34.1
D 234	D3-2 DO YOU INSPECT FILTER CIRCUITS?	54.5	36.6	.0	31.3	8.5	42.9	10.5	70.5
E 287	E3-11 DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?	54.5	46.0	3.4	68.8	78.3	52.4	36.8	72.7
C 103	C1-7 DO YOU MEASURE CAPACITORS?	53.0	60.2	.0	62.5	41.5	38.1	20.2	79.5
C 123	C2-3 DO YOU CLEAN TRANSFORMERS?	51.5	59.0	.0	68.8	20.8	47.6	14.9	72.7
Q1153	Q2-26 DO YOU REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS OF STORAGE DEVICES?	51.5	22.4	3.4	12.5	7.5	.0	.9	38.6
Q1154	Q2-27 DO YOU TRACE SIGNAL FLOW IN STORAGE DEVICES USING LOGIC DIAGRAMS OR SCHEMATICS?	51.5	18.6	3.4	.0	1.9	.0	.0	29.5
E 294	E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?	50.0	47.2	10.3	68.8	66.0	57.1	31.6	88.6
L 739	L3-10 DO YOU USE OR REFER TO UP CLOCKS?	50.0	16.1	3.4	6.3	1.9	9.5	.0	54.5
M 407	M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?	50.0	5.6	20.7	.0	5.7	.0	.9	36.4
G 407	G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	48.5	24.8	.0	31.3	16.0	38.1	8.8	84.1
M 783	M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?	48.5	73.3	.0	6.3	11.3	.0	.0	88.6
Q1152	Q2-25 DO YOU TROUBLESHOOT MEMORY SYSTEM STORAGE DEVICES?	48.5	19.3	20.7	6.3	5.7	.0	.9	31.8
D 235	D3-3 DO YOU CLEAN FILTER CIRCUITS?	47.0	31.1	.0	25.0	8.5	33.3	7.9	52.3
L 710	L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.	47.0	16.1	6.9	18.8	2.8	.0	1.8	40.9
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	45.5	36.0	10.3	62.5	16.0	38.1	7.9	90.9
E 249	E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.	45.5	24.2	.0	18.8	7.5	14.3	7.9	79.5
G 410	G3-4 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	45.5	19.9	.0	31.3	9.4	38.1	7.9	84.1
M 409	M3-2 DO YOU INSPECT OSCILLATORS?	45.5	16.8	3.4	6.3	17.9	66.7	2.6	75.0
Q1158	G3-1 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS OR ANALOG-TO-DIGITAL (A/D) CONVERTERS? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.	45.5	7.5	.0	12.5	4.7	.0	.9	50.0

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C TASK TITLES

N 833 M3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.

F 332 F3-9 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS?

M 500 M3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?

M 501 M3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?

B 76 R3-2 DO YOU INSPECT INDUCTORS?

M 503 M3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?

M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?

G 408 G3-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?

G 413 G3-7 DO YOU REMOVE OR REPLACE AMPLIFIER CIRCUIT COMPONENTS?

L 709 L1-25 DO YOU USE OR REFER TO NONCOMPLETED FLIP-FLOP LOGIC SYMBOLS?

L 743 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS?

S1199 S1-12 DO YOU USE OR REFER TO INTERFACE ADAPTER UNITS?

B 75 R3-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C1-1; IF YES, CONTINUE.

F 341 F3-18 DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?

L 722 L2-5 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES?

L 748 L3-19 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?

M 756 M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?

M 785 M3-8 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?

N 815 M1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?

B 63 R1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE POWER?

B 66 R1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE PRESSURE?

E 255 E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING?

E 278 E3-2 DO YOU ADJUST RELAYS?

G 412 G3-6 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?

I 532 I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL FREQUENCY DETERMINING DEVICES (FOOI)?

S1203 S2-2 DO YOU WORK WITH PHOTOTRANSISTOR PHOTO SENSITIVE DEVICES?

O 239 C3-7 DO YOU WORK WITH LOW PASS FILTERS?

M 454 M1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS?

U1304 U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF YES, CONTINUE.

E 67 E1-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE LIGHT LEVELS?

L 712 L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?

B 77 R3-3 DO YOU CLEAN INDUCTORS?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)
43.0	21.1	3.4	12.5	2.8	.0	1.8	68.2
42.4	26.7	.0	37.5	15.1	14.3	.0	54.5
42.4	12.4	.0	12.5	18.9	57.1	2.6	72.7
42.4	13.0	.0	12.5	16.0	61.9	.9	65.9
40.9	38.5	.0	56.3	18.9	14.3	7.9	75.0
40.9	14.9	.0	18.8	13.2	57.1	.9	72.7
40.9	6.2	3.4	.0	4.7	.0	.9	29.5
39.4	22.4	.0	31.3	11.3	47.6	6.1	84.1
39.4	20.5	.0	18.4	3.8	23.8	1.8	81.8
39.4	14.3	3.4	6.3	.9	.0	.0	43.2
39.4	12.4	.0	12.5	.9	.0	.9	43.2
39.4	30.4	10.3	37.5	6.6	4.8	1.8	29.5
37.0	36.6	6.9	37.5	21.7	14.3	12.3	68.2
37.0	21.7	.0	31.3	12.3	33.3	.9	65.9
37.0	14.3	.0	18.8	1.9	.0	.0	45.5
37.9	6.2	.0	.0	1.9	4.8	.0	27.3
37.0	6.2	.0	6.3	.9	9.5	.0	25.0
37.0	71.4	17.2	6.3	9.4	.0	.0	86.4
37.0	39.8	41.4	25.0	36.8	23.8	24.6	52.3
36.4	47.2	34.5	31.3	52.8	42.9	37.7	59.1
36.4	8.7	44.8	56.3	25.5	4.8	6.1	72.7
36.4	13.7	.0	6.3	6.6	14.3	6.1	72.7
36.4	39.1	.0	68.8	77.4	76.2	68.4	68.2
36.4	18.0	.0	31.3	12.3	47.6	5.3	79.5
36.4	13.0	.0	.0	.0	.0	.0	70.5
36.4	10.6	.0	.0	1.9	.0	.0	54.5
34.8	20.5	.0	12.5	2.8	52.4	.9	61.4
34.8	14.9	.0	12.5	2.8	.0	.0	61.4
34.8	5.6	20.7	31.3	9.4	.0	2.6	29.5
33.3	1.9	6.9	.0	1.9	.0	6.1	47.7
33.3	4.3	.0	6.3	.9	.0	.0	11.4
31.8	28.6	.0	56.3	14.2	9.5	6.1	59.1

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D TCA	TITLES	306	306	316	316	362	362	362	362	918
		51	52	50F	52F	51	53	54	54	50
		MM	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
D 180	D1-1 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.	31.8	25.5	3.4	12.5	9.4	14.3	4.4	77.3	
D 243	D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?	31.8	22.4	6.9	25.0	7.5	9.5	14.0	29.5	
E 286	E3-10 DO YOU PERFORM TASKS ON COILS OF RELAYS?	31.8	28.6	3.4	43.8	56.6	38.1	11.4	61.4	
G 353	G1-12 DO YOU READ CLOUE COLOR CODING?	31.8	17.4	.0	37.5	8.5	9.5	.9	18.2	
G 378	G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION?	31.8	20.5	.0	25.0	6.6	28.6	.9	81.8	
M 808	M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	30.3	5.0	17.2	.0	3.8	.0	.0	27.3	
N 253	N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS?	30.3	11.8	.0	.0	.9	.0	.9	61.4	
U1341	U1-38 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTIONS?	30.3	4.3	3.4	6.3	3.8	.0	.0	15.9	
U1343	U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT DEVICES?	30.3	3.7	6.9	6.3	7.5	.0	.0	25.0	
U1345	U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT DEVICES?	30.3	3.7	6.9	6.3	6.6	.0	.0	25.0	
O 236	O3-4 DO YOU ALIGN OR ADJUST FILTER CIRCUITS?	28.8	16.1	.0	25.0	5.7	28.6	5.3	68.2	
M 764	M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	28.8	59.0	.0	68.8	27.4	81.0	15.8	75.0	
N 847	N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?	28.8	12.4	.0	6.3	.9	.0	.9	61.4	
N 852	N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS?	28.8	9.9	.0	6.3	.9	.0	.9	59.1	
U1307	U1-4 DO YOU USE OR REFER TO PARITY DETECTORS/GENERATORS?	28.8	4.3	3.4	.0	3.8	.0	.0	15.9	
U1342	U1-39 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTIONS?	28.8	5.0	3.4	6.3	3.8	.0	.0	13.6	
U1347	U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR DEVICES?	28.8	3.7	6.9	6.3	4.7	.0	.0	22.7	
E 256	E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING?	27.3	17.4	.0	18.9	7.5	14.3	4.4	70.5	
F 309	F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.	27.3	5.0	6.9	18.8	11.3	81.0	57.9	72.7	
J 617	J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?	27.3	1.9	3.4	.0	2.8	4.8	.0	13.6	
K 681	K3-22 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	27.3	8.1	6.9	43.8	4.7	4.8	1.8	40.9	
L 711	L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR "M" BARS?	27.3	1.2	.0	6.3	.9	.0	.0	9.1	
L 740	L3-11 DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?	27.3	5.6	.0	6.3	.9	.0	.0	34.1	
N 850	N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS?	27.3	13.0	.0	6.3	.9	.0	.9	61.4	
F 710	F2-2 DO YOU INSPECT SPEAKERS?	25.8	4.3	.0	14.8	10.4	81.0	52.6	70.5	
F 713	F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?	25.8	4.3	.0	14.8	8.5	76.2	53.5	70.5	
F 715	F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?	25.8	4.3	.0	14.8	8.5	81.0	52.6	68.2	
M 496	M2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS OTHER THAN SOLID-STATE?	25.8	24.2	.0	25.0	13.2	33.3	7.9	50.0	
M 502	M3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?	25.8	12.4	.0	12.5	6.6	14.3	.9	72.7	
L 710	L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR "M" BARS?	25.8	1.2	.0	6.3	.9	.0	.0	9.1	
M 794	M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS?	25.8	73.9	3.4	6.3	8.5	.0	1.5	81.8	
N 614	N1-6 DO YOU EXTEND THE RANGE OF AMMETERS?	25.8	31.1	27.6	18.8	30.2	14.3	15.8	45.5	

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306 316 362 362 362 918
51 52 51 53 54 50
#MM (M) (M) (M) (M) (M)

25.8 16.1 6.9 .0 3.8 .0 .9 38.6
25.8 3.1 .0 .0 .9 .0 .0 9.1
25.8 3.7 3.4 6.3 5.7 .0 .0 25.0
24.2 34.2 17.2 56.3 48.1 28.6 33.3 79.5
24.2 7.5 37.9 81.3 38.7 28.6 5.3 86.4
24.2 16.8 .0 12.5 4.7 28.6 .9 61.4
24.2 9.3 .0 6.3 .9 4.8 2.6 38.6
24.2 6.8 .0 12.5 2.8 4.8 .0 70.5
24.2 24.2 .0 18.8 2.8 .0 .0 93.2
24.2 29.2 31.0 62.5 32.1 14.3 23.7 56.8
24.2 3.7 .0 .0 2.8 .0 .0 47.7
24.2 4.3 .0 .0 2.8 .0 .0 45.5
24.2 3.1 .0 6.3 2.8 .0 .0 18.2
24.2 3.1 .0 6.3 1.9 .0 1.8 34.1
24.2 3.7 6.9 6.3 6.6 .0 .0 25.0
22.7 15.5 3.4 12.5 29.2 23.8 12.3 29.5
22.7 4.3 .0 12.5 7.5 66.7 38.6 40.9
22.7 12.4 .0 18.8 13.2 14.3 .0 43.2
22.7 55.3 .0 56.3 20.8 71.4 12.3 75.0
22.7 11.8 10.3 12.5 11.3 4.8 .0 68.2
22.7 28.0 20.7 25.0 24.5 14.3 17.5 43.2
22.7 11.8 13.8 18.8 3.8 4.8 .9 29.5
21.2 18.6 3.4 31.3 52.8 33.3 6.8 40.9
21.2 3.7 6.9 12.5 9.4 76.2 1.8 59.1
21.2 12.4 .0 .0 4.8 .0 65.9
21.2 16.1 3.4 6.3 1.9 4.8 .9 72.7
21.2 47.2 .0 31.3 14.2 28.6 7.9 59.1
21.2 10.6 .0 6.3 .9 .0 .9 61.4
21.2 16.1 .0 6.3 3.8 .0 .0 20.5

Q1139 Q2-12 DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?
Q1175 Q3-21 WAS THE COMPUTER OF LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT UTILITIES?
U1346 U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?
A 24 A2-13 DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?
B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?
D 240 D3-8 DO YOU WORK WITH HIGH PASS FILTERS?
D 244 D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?
G 442 G3-36 DO YOU TROUBLESHOOT OR REPAIR PF AMPLIFIERS?
H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS?
N 817 N1-9 DO YOU ZERO AMMETERS?
Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?
Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (L/A) CONVERTERS?
Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?
Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?
U1344 U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE DEVICES?
E 282 E3-6 DO YOU MONITOR BIAS OUTPUT ON RELAYS?
F 311 F2-3 DO YOU CLEAN SPEAKERS?
F 338 F3-15 DO YOU USE OSCILLOSCOPES TO MEASURE PHASE JITTERS?
M 765 M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS?
M 790 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?
N 820 N1-12 DO YOU CONSIDER OTHER METER MOVEMENTS?
S1197 S1-10 DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?
E 285 E3-9 DO YOU PERFORM TASKS ON COPIES OF RELAYS?
F 312 F2-4 DO YOU OPERATE SPEAKERS?
I 530 I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?
I 540 I2-1 DO YOU WORK WITH LIMITERS OF CLAMPERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM I3-1; IF YES, CONTINUE.
M 766 M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?
N -8 N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?
Q1150 Q2-23 DO YOU ALIGN STORAGE DEVICES?

Q1139 Q2-12 DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?
Q1175 Q3-21 WAS THE COMPUTER OF LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT UTILITIES?
U1346 U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?
A 24 A2-13 DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?
B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?
D 240 D3-8 DO YOU WORK WITH HIGH PASS FILTERS?
D 244 D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?
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F 312 F2-4 DO YOU OPERATE SPEAKERS?
I 530 I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?
I 540 I2-1 DO YOU WORK WITH LIMITERS OF CLAMPERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM I3-1; IF YES, CONTINUE.
M 766 M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?
N -8 N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?
Q1150 Q2-23 DO YOU ALIGN STORAGE DEVICES?

POT MATCHED WITH SURVEY DATA

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Q1151 Q2-24 DO YOU ADJUST STORAGE DEVICES?
U1264 U2-4 DO YOU USE VIVA (RE METERS) TO CHECK FOR NOISE OR
SIGNAL LEVEL?

21.2 17.4 .0 12.5 3.8 .0 .0 22.7
21.2 13.7 .0 6.3 54.7 76.2 17.5 31.8

C 111 C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?
C 129 C2-4 DO YOU ADJUST TRANSFORMERS?
G 422 G3-16 DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR
AMPLIFIERS?

10.7 20.5 .0 37.5 14.2 9.5 5.2 43.2
10.7 24.8 .0 43.8 12.3 9.5 3.5 65.9
10.7 14.9 .0 25.0 4.7 14.3 1.8 50.0

I 539 I1-11 DO YOU WORK WITH "0" FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?
M 767 M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY
WHILE USING SIGNAL GENERATORS?

10.7 6.2 .0 6.3 .9 4.8 .0 43.2
19.7 44.7 .0 12.5 10.4 28.6 7.0 54.5

Q1172 J3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?
B 78 B3-4 DO YOU ADJUST INDUCTORS?
D 218 D1-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?
D 241 D3-9 DO YOU WORK WITH BANDPASS FILTERS?

10.7 3.7 .0 12.5 7.8 .0 .0 19.2
18.2 19.3 3.4 43.8 13.2 .0 1.8 56.8
18.2 13.7 .0 6.3 3.8 19.0 3.5 52.3
18.2 6.2 .0 6.3 3.8 14.3 2.6 52.3

D 245 D3-13 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?
C 246 D3-14 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?
M 768 M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE
COMPONENT WHILE USING SIGNAL GENERATORS?

18.2 8.1 .0 12.5 .9 .0 1.8 36.4
18.2 8.7 .0 6.3 1.9 .0 1.8 34.1
18.2 32.3 .0 12.5 4.7 14.3 1.6 52.3

M 769 M2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?
M 797 M3-20 DO YOU WORK WITH INDUCTION MOTORS?
S1196 S1-9 DO YOU USE OR REFER TO LCD'S?
U1323 U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?
U1328 U1-25 DO YOU USE OR REFER TO MNEMONICS?

18.2 8.7 .0 50.0 11.3 52.4 4.4 52.3
18.2 10.6 .0 .0 7.5 .0 .0 79.5
18.2 19.9 10.3 31.3 5.7 .0 .0 43.2
18.2 3.1 6.9 25.0 7.5 .0 .0 22.7

F 314 F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN
WIRE CONNECTIONS?
G 423 G3-17 DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR
AMPLIFIERS?

16.7 2.5 .0 .0 1.9 66.7 21.9 31.8
16.7 1.2 .0 6.3 4.7 .0 .0 11.4
16.7 10.6 .0 18.8 4.7 4.8 1.8 38.6
16.7 9.3 .0 25.0 1.9 .0 .0 72.7

G 441 G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS
(DOUBLERS/TRIPLES)?
G 451 G3-45 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS?
H 520 H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATO
H 524 H3-27 DO YOU WORK WITH -- DON'T KNOW WHICH TYPE OF
SINUSOIDAL OSCILLATOR?

16.7 6.8 .0 18.8 1.9 .0 .0 79.5
16.7 3.1 .0 12.5 .9 5.5 .0 40.9
16.7 8.7 3.4 6.3 14.2 28.6 .9 29.5

I 544 I2-5 DO YOU WORK WITH ZENER DIODE LIMITERS?
J 612 J3-2 DO YOU PERFORM TASKS ON FREQUENCY CONVERTER SYSTEMS
STAGES?

16.7 14.9 3.4 6.3 1.9 4.8 .0 75.0
16.7 9.3 3.4 .0 7.5 .0 .0 13.6

Q1136 Q2-9 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES?
Q1156 Q3-2 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL
DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT
VOLTAGES?

16.7 3.1 .0 .0 1.9 .0 .0 13.6
16.7 1.9 .0 .0 .9 .0 .0 31.8

Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL
(A/D) CONVERTER CIRCUITS PUT DON'T KNOW WHICH FUNCTION?
U1316 U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?
U1345 U2-5 DO YOU USE VIVA (CB METERS) TO CHECK CP ADJUST AUDIO
AMPLIFIERS?

16.7 2.5 .0 6.3 .9 .0 .0 9.1
16.7 1.9 10.3 6.3 2.8 .0 .0 22.7
16.7 6.2 .0 6.3 43.4 76.2 12.3 25.0

E 276 E2-14 DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON
TOOL IN LIEU OF SOLDERING?

15.2 8.7 .0 6.3 42.5 23.6 80.7 13.6

Q TSM	TITLES	306	306	316	316	362	362	362	362	918
		51	52	50F	50F	51	53	54	54	50
		4P*	(P)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
I 533	I1-5 DO YOU WORK WITH "MULTIPLIERS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FLO?	15.2	6.8	.0	.0	1.9	.0	.0	.0	29.5
L 724	L2-7 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA?	15.2	5.6	.0	.0	2.8	.0	.0	.0	27.3
Q1159	Q3-4 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS?	15.2	1.9	.0	.0	1.9	.0	.0	.0	29.5
Q1171	Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?	15.2	1.9	.0	.0	12.5	3.8	.0	.0	29.5
U1361	U2-1 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION?	15.2	9.9	.0	.0	47.2	71.4	15.8	38.6	
C 143	C2-18 DO YOU WORK WITH CONTROL TRANSFORMERS?	13.6	9.3	3.4	25.0	8.5	.0	2.6	59.1	
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	13.6	5.6	6.9	31.3	7.5	.0	1.8	77.3	
F 316	F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?	13.6	3.1	.0	.0	1.9	52.4	18.4	13.6	
M 522	M3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO) SINUSOIDAL OSCILLATORS?	13.6	4.3	.0	12.5	.9	.0	.0	40.9	
J 613	J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?	17.6	3.1	3.4	.0	3.8	.0	.9	13.6	
M 794	M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR?	17.6	26.1	.0	6.3	2.8	.0	.0	40.9	
N 811	N1-3 DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?	17.6	31.7	3.4	18.8	17.9	9.5	4.4	45.5	
Q1167	Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?	13.6	1.9	.0	.0	.9	.0	.0	38.6	
U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	17.6	1.2	3.4	.0	5.7	.0	.9	13.6	
H 515	H3-18 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T KNOW WHICH TYPE OF FDD?	12.1	5.0	3.4	6.3	11.3	33.3	.9	22.7	
K 677	K3-18 DO YOU ADD HEXADECIMAL NUMBERS?	12.1	5.6	.0	56.3	1.9	.0	1.8	36.4	
L 723	L2-6 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS?	12.1	6.2	.0	.0	1.9	.0	.0	25.0	
M 770	M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE?	12.1	5.0	.0	31.3	.9	.0	.0	47.7	
M 798	M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS?	12.1	6.2	3.4	12.5	4.7	.0	.9	52.3	
N 849	N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?	12.1	8.1	.0	.0	.0	.0	.9	61.4	
U1316	U1-13 DO YOU USE OR REFER TO STEERING INFORMATION?	12.1	2.5	6.9	6.3	2.8	.0	.0	11.4	
U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	12.1	3.1	10.3	12.5	4.7	.0	.9	18.2	
D 226	D2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS? IF NO, GO TO ITEM D3-1; IF YES, CONTINUE.	10.6	5.6	.0	.0	2.8	.0	.0	38.6	
H 465	H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS?	10.6	3.7	.0	6.3	1.9	.0	.0	75.0	
H 514	H3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK LOOPS (PLL)?	10.6	4.3	.0	.0	4.7	.0	.0	34.1	
J 597	J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?	10.6	26.1	6.9	18.9	6.6	4.8	2.5	79.5	
K 678	K3-19 DO YOU SUBTRACT HEXADECIMAL NUMBERS?	10.6	5.6	.0	56.3	1.9	.0	.9	36.4	
N 812	N1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?	10.6	17.4	3.4	18.8	14.2	14.3	.9	43.2	
N 846	N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE CIRCUITS?	10.6	5.0	.0	.0	.0	.0	.0	68.2	
Q1129	Q2-2 DO YOU USE OR REFER TO DELAY LINES?	10.6	4.3	.0	.0	.9	.0	.0	13.6	

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U TSK	TITLES	306	306	316	316	362	362	362	362	918
		51	52	50F	52F	51	53	54	54	50
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
Q1166	Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?	10.6	1.9	.0	.0	.9	.0	.0	.0	34.1
D 248	Q3-16 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS?	9.1	1.9	.0	6.3	1.9	.0	.9	.9	18.2
H 459	H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS?	9.1	13.7	.0	6.3	5.7	4.8	3.5	3.5	34.1
H 495	H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER?	9.1	5.0	.0	12.5	2.8	.0	3.5	3.5	22.7
M 800	M3-23 DO YOU WORK WITH SERVOS OF SYNCHROS MOTORS?	9.1	13.0	3.4	6.3	5.7	.0	.0	.0	72.7
Q1157	Q3-3 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS?	9.1	1.2	.0	.0	.9	.0	.0	.0	22.7
Q1161	Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	9.1	1.9	.0	.0	1.9	.0	.0	.0	34.1
Q1164	Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?	9.1	1.9	.0	.0	.9	.0	.0	.0	36.4
U1309	U1-6 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS?	9.1	.6	6.9	.0	2.8	.0	.0	.0	13.6
U1212	U1-9 DO YOU USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)?	9.1	1.2	.0	.0	2.8	.0	.9	.9	15.9
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	7.6	3.7	.0	31.3	5.7	.0	.9	.9	72.7
D 183	D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?	7.6	1.9	.0	6.3	4.7	.0	.0	.0	25.0
C 242	Q3-10 DO YOU WORK WITH BAND-REJECT FILTERS?	7.6	3.7	.0	12.5	3.8	4.8	.9	.9	31.8
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	7.6	1.9	.0	12.5	1.9	.0	.0	.0	40.9
M 453	H1-1 DO YOU USE OR REFER TO VARACTORS/VARICAP COMPONENTS?	7.6	9.3	.0	18.8	3.8	.0	.9	.9	38.6
H 461	H1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS?	7.6	7.5	.0	.0	2.8	.0	.0	.0	20.5
M 464	H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS?	7.6	1.9	.0	6.3	1.9	.0	.0	.0	86.4
M 638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	7.6	1.2	3.4	.0	3.8	.0	1.6	1.6	6.6
M 777	M2-14 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS?	7.6	19.3	.0	25.0	8.5	9.5	.9	.9	50.0
M 797	M3-16 DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOR?	7.6	21.7	.0	.0	1.9	.0	.0	.0	18.2
N 810	M1-2 DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?	7.6	32.9	3.4	43.8	13.2	14.3	5.3	5.3	43.2
P 060	P1-1 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES? (DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES.) IF NO, GO TO ITEM P2-1; IF YES, CONTINUE.	7.6	14.9	.0	.0	39.6	23.8	34.2	34.2	4.5
Q1160	Q3-5 DO YOU PERFORM TASKS ON SAMPLE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	7.6	1.9	.0	.0	1.9	.0	.0	.0	30.6
Q1177	P1-1 DO YOU WORK WITH PHANTASTOP CIRCUITRY? IF NO, GO TO ITEM Q2-1. IF YES, CONTINUE.	7.6	2.5	.0	.0	.9	.0	.0	.0	2.3
Q1180	P1-4 PHANTASTOP CIRCUITRY HAS NONSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	7.6	2.5	.0	.0	1.9	.0	.0	.0	4.5
Q1181	P1-5 PHANTASTOP CIRCUITRY HAS BISTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	7.6	2.5	.0	.0	1.9	.0	.0	.0	4.5

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D TASK TITLES

R1187 R3-2 DO YOU FABRICATE COAXIAL CABLES?
S1205 S2-4 DO YOU WORK WITH PHOTO-SCO PHOTO SENSITIVE DEVICES?
U1121 U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?
U1357 U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1366 U2-6 DO YOU USE A HP3550 CP 344A TEST SET TO ALIGN AUDIO EQUIPMENT?
C 142 C2-17 DO YOU WORK WITH SENSING TRANSFORMERS?
C 165 C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?
D 184 D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?
D 189 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (P SUB AVE) WHEN WORKING WITH RCL CIRCUITS?
D 211 D1-32 DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?
F 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.
M 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS?
H 475 H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?
I 555 I3-6 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES?
J 601 J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?
J 603 J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?
J 615 J3-5 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?
M 795 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?
N 819 N1-11 DO YOU CONSIDER BALLASTIC RESPONSE OF METER MOVEMENTS?
P 979 P1-11 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES?
R1182 P1-6 PHANTASTRON CIRCUITRY HAS FREE-RUNNING MULTIVIBRATORS APPLICATIONS IN MY JOB.
R1186 P3-1 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES?
S1194 S1-7 DO YOU USE OR REFER TO NIXIE LIGHTS (TUBES)?
S1204 S2-3 DO YOU WORK WITH PHOTOURE PHOTO SENSITIVE DEVICES?
U1310 U1-7 DO YOU USE OR REFER TO FOUR SYSTEMS?
U1324 U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?
U1351 U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?
U1359 U1-56 DO YOU USE BICIRECTIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
C 179 C3-12 DO YOU USE OR REFER TO SATURABLE REACTANCE?

306	306	316	316	362	362	362	919
51	52	50F	52F	51	53	54	50
4M*	(M)	(M)	(M)	(M)	(M)	(M)	(M)
7.6	18.6	.0	37.5	11.3	.0	5.3	40.9
7.6	3.1	.0	.0	1.9	.0	.0	22.7
7.6	2.5	.0	25.0	3.8	.0	.0	9.1
7.6	3.1	3.4	.0	3.8	.0	.0	27.3
7.6	3.1	.0	.0	47.2	33.3	7.0	2.3
6.1	3.1	3.4	18.8	4.7	.0	.9	31.8
6.1	3.7	.0	6.3	5.7	.0	.9	56.8
6.1	1.9	.0	6.3	4.7	.0	.0	22.7
6.1	6.2	.0	.0	4.7	.0	.0	31.9
6.1	4.3	.0	.0	2.8	.0	.0	20.5
6.1	6.2	13.8	31.3	7.5	66.7	20.2	75.0
6.1	1.9	.0	.0	1.9	.0	.0	77.3
6.1	4.3	6.9	12.5	9.4	19.0	3.5	40.9
6.1	10.6	.0	43.8	2.8	.0	1.8	40.9
6.1	10.6	.0	18.8	1.9	.0	.9	52.3
6.1	13.7	3.4	6.3	1.9	4.8	.0	72.7
6.1	.6	.0	.0	.9	.0	.0	11.4
6.1	16.8	.0	.0	1.9	.0	.0	25.0
6.1	6.2	3.4	.0	7.5	.0	2.6	18.2
6.1	11.8	.0	.0	11.3	.0	7.9	4.5
6.1	1.9	.0	.0	1.9	.0	.0	4.5
6.1	21.1	.0	56.3	21.7	4.8	37.7	34.1
6.1	18.6	.0	6.3	.9	.0	.0	27.3
6.1	2.5	.0	.0	1.9	.0	.0	70.5
6.1	.0	.0	.0	.9	.0	.0	11.4
6.1	.6	3.4	18.8	.9	.0	.0	11.4
6.1	2.5	3.4	.0	3.8	4.8	1.8	22.7
6.1	1.2	.0	.0	3.8	.0	.9	20.5
4.5	3.7	.0	6.3	9.4	.0	1.6	18.2

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D TSM TITLES

FCPRIE PAGE TOS

306 316 362 362 362 918

51 52 53 54 50

(M) (M) (M) (M) (M)

4.5 5.6 .0 5.7 .0 .0 27.3

4.5 2.5 .0 3.8 .0 .0 18.2

4.5 7.5 .0 6.3 2.8 .0 .0 45.5

4.5 6.2 .0 2.8 .0 .0 43.2

4.5 6.2 .0 2.8 .0 .0 40.9

4.5 1.2 .0 1.9 9.5 1.8 15.9

4.5 5.6 .0 12.5 2.8 .0 .0 34.1

4.5 4.3 .0 1.9 .0 .0 31.8

4.5 5.0 .0 62.5 3.8 .0 .0 50.0

4.5 6.2 .0 25.0 1.9 .0 .0 50.0

4.5 13.7 .0 6.3 2.8 .0 .0 50.0

4.5 9.3 .0 6.3 1.9 .0 .0 28.6

4.5 .0 3.4 .0 .0 .0 11.4

4.5 2.5 3.4 .0 1.9 .0 9.1

4.5 .6 .0 1.9 .0 .0 11.4

4.5 .6 .0 1.9 .0 .0 9.1

4.5 .6 .0 1.9 .0 .0 6.8

4.5 5.0 .0 8.3 3.8 .0 .0 40.9

4.5 1.2 .0 6.3 1.9 .0 .0 27.3

4.5 37.9 .0 2.8 .0 .0 36.4

4.5 1.9 .0 1.9 .0 .0 31.2

4.5 .0 .0 .0 .0 .0 11.4

4.5 .6 .0 .0 .0 .0 13.6

4.5 5.0 .0 10.4 .0 3.5 2.3

4.5 8.7 .0 18.9 4.8 14.0 2.3

4.5 10.6 .0 35.8 19.0 33.3 4.5

4.5 1.9 .0 1.9 .0 .0 26.4

4.5 1.9 .0 .0 .0 .0 38.6

4.5 1.9 .0 .0 .0 .0 27.3

4.5 .6 .0 1.9 .0 .0 4.5

4.5 .0 .0 1.9 .0 .0 11.4

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4.5 .0 .0 1.9 .0 .0 11.4

D 10P 11-9 DO YOU USE OR REFER TO MAXIMUM POWER (P SUB M) WHEN WORKING WITH FCL CIRCUITS?

D 210 01-31 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS?

E 252 01-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH OPTICAL COUPLING?

E 260 01-12 DO YOU WORK WITH OPTICAL COUPLING?

E 261 01-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?

F 321 02-13 DO YOU PERFORM ANY TASKS ON PERMANENT MAGNET SPEAKER PARTS?

G 448 03-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?

I 549 12-10 DO YOU WORK WITH DC RESTORERS?

I 553 13-4 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES?

I 554 13-5 DO YOU USE SCOPES TO CHECK ELECTRON TUBES?

J 600 02-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?

J 602 02-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC REFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?

J 616 03-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?

K 618 01-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.

K 647 02-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?

K 648 02-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?

K 650 02-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?

M 771 02-8 DO YOU USE RF GENERATORS LESS THAN 1,000 MHZ?

M 772 02-9 DO YOU USE RF GENERATORS GREATER THAN 1,000 MHZ?

M 774 02-11 DO YOU USE PATTERN GENERATORS?

M 801 03-24 DO YOU WORK WITH SHADED-POLE MOTORS?

O 890 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?

O 897 02-14 DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?

P 974 01-6 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE LEAKAGE LOSSES?

P 978 01-10 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES?

P 981 01-13 DO YOU TROUBLESHOOT TRANSMISSION LINES?

Q 1160 03-6 DO YOU PERFORM TASKS ON HOLD FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

Q 1165 03-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?

Q 1168 03-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?

R 1178 01-2 TRANSMISSION CIRCUITRY HAS VARIABLE-DELAY APPLICATIONS IN ANY JOB?

T 1244 12-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS? IF NO, GO TO ITEM T3-1; IF YES, CONTINUE.

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O TASK TITLES

U1327 U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?
U1328 U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?
U1352 U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1358 U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1362 U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?
A 6 A1-6 DO YOU USE LOGARITHM TABLES?
A 7 A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $AX^2 + 4X + 4 = 0$?
D 185 D1-6 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS?
F 298 F1-4 DO YOU OPERATE MICROPHONES?
F 317 F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?
G 400 G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?
G 438 G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?
G 443 G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?
G 447 G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?
I 546 I2-7 DO YOU WORK WITH TRIODE LIMITERS?
I 550 I3-1 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS BASIC ELECTRON TUBES (FOR PURPOSES OF THIS QUESTION DO NOT CONSIDER HIGH-FREQUENCY DEVICES SUCH AS KLYSTRONS, TRAVELING WAVE TUBES, BACKWARD WAVE OSCILLATORS, OR MAGNETRONS AS ELECTRON TUBES)? IF NO, GO TO ITEM J1-1; IF YES, CONTINUE.
I 586 I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?
J 609 J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?
K 645 K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?
K 646 K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?
K 656 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?
K 657 K2-20 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?
K 682 K3-23 DO YOU USE OR REFER TO GRAY CODE?
O 854 O1-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM O2-1; IF YES, CONTINUE.
O 860 O1-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?
O 861 O1-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?

206	306	316	306	362	362	362	918
51	52	50F	(M)	51	53	56	50
4.5	1.2	.0	6.3	4.7	.0	.0	15.9
4.5	.0	.0	.0	1.9	.0	.9	11.4
4.5	1.9	.0	.0	1.9	.0	.0	22.7
4.5	1.9	.0	.0	1.9	.0	.9	20.5
4.5	2.5	.0	.0	6.6	.0	.0	11.4
2.0	3.1	.0	.0	3.8	4.8	1.8	15.9
2.0	2.5	.0	.0	4.7	.0	2.5	27.3
3.0	1.9	.0	.0	4.7	.0	.0	27.3
2.0	4.3	13.8	12.5	7.5	57.1	15.6	63.6
3.0	1.9	.0	.0	1.9	9.5	2.6	15.9
3.0	13.0	.0	6.3	.9	.0	1.8	20.5
3.0	4.3	.0	6.3	1.9	4.8	.0	31.8
3.0	3.1	.0	.0	1.9	.0	.0	40.9
3.0	4.3	.0	.0	1.9	4.8	.0	29.5
3.0	3.1	.0	.0	.9	.0	.0	34.1
3.0	11.2	.0	56.3	7.5	4.8	2.6	52.3
3.0	8.1	.0	56.3	6.6	.0	.0	47.7
3.0	5.6	.0	.0	1.9	.0	.0	54.5
3.0	.6	.0	.0	.9	.0	.0	6.8
3.0	.6	.0	.0	.9	.0	.0	2.3
3.0	.6	.0	.0	.9	.0	.9	9.1
3.0	.6	.0	.0	1.9	.0	.9	9.1
3.0	1.9	.0	6.3	1.9	.0	1.8	22.7
3.0	1.2	13.8	.0	1.9	4.8	.0	.0
3.0	.6	3.4	.0	.9	4.6	.0	.0
3.0	.6	.0	.0	.9	4.6	.0	.0

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D TSK TITLES

0 862 01-9 DO YOU PERFORM TASKS ON SSE OR ISB TRANSMIT OR RECEIVE
SYSTEM AUDIO AMPLIFIER STAGE?

0 868 01-15 DO YOU PERFORM TASKS ON SSE OF ISB TRANSMIT OR
RECEIVE SYSTEM OSCILLATOR STAGE?

0 870 01-17 DO YOU PERFORM TASKS ON SSE OR ISB TRANSMIT OR
RECEIVE SYSTEM DRIVER STAGE?

0 893 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE
MODULATION SYSTEMS?

0 896 02-13 DO YOU WORK ON LINE PULSING MODULATION PULSE
MODULATION SYSTEMS?

0 898 02-15 DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION
SYSTEM?

0 937 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS
WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS
TO THE GENERATOR?

P 972 P1-4 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE RADIATION LOSS?

P 973 P1-5 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO
OR USE DIELECTRIC LOSS?

P 976 P1-8 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES?

P 980 P1-12 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION
LINES?

P 982 P1-14 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN
TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION
(OPEN, SHORTED, CAPACITIVE, INDUCTIVE)?

P 983 P1-15 DO YOU SELECT APPROPRIATE TRANSMISSION LINE
TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS?

P 984 P1-16 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE
TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS?

Q1128 02-11 DO YOU USE OR REFER TO THIN FILMS?

Q1129 03-6 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF
ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

S1127 53-1 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS?
IF NO, GO TO ITEM 11-1; IF YES, CONTINUE.

T1129 12-2 DO YOU INSPECT LASER SYSTEMS?

T1240 12-3 DO YOU CLEAN LASER SYSTEMS?

T1247 12-4 DO YOU SERVICE LASER SYSTEMS?

T1248 12-5 DO YOU OPERATE LASER SYSTEMS?

T1249 12-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS?
IF NO, GO TO ITEM 11-1; IF YES, CONTINUE.

T1250 12-9 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER
SYSTEMS?

T1277 13-1 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES,
SUCH AS DIRECT VIEW STORAGE TUBES (DVST), MULTIPLE MORE
STORAGE TUBES (MST), OR SCAN CONVERTER TUBES (SCT)? IF
NO, GO TO ITEM 14-1; IF YES, CONTINUE.

Q1278 11-17 DO YOU USE EQUIPMENT FOR TROUBLESHOOTING OF SPECIFIC
CIRCUITS?

S1279 01-50 DO YOU USE OUTPUT COPY LAYER CIRCUITS IN CONJUNCTION
WITH THE MICROPROCESSOR?

308 #MS	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
3.0	1.2	.0	.0	.9	.0	.0	.0
3.0	1.2	3.4	.0	.9	.0	.0	.0
3.0	1.2	.0	.0	.0	.0	.0	.0
3.0	.6	.0	.0	1.9	.0	1.8	15.9
3.0	.6	.0	.0	2.8	.0	1.8	11.4
3.0	.0	.0	.0	.9	.0	2.6	6.8
3.0	.6	.0	.0	1.9	.0	1.8	2.3
3.0	3.1	.0	.0	4.7	.0	.0	2.3
3.0	1.2	.0	.0	3.5	.0	.0	2.3
3.0	10.6	.0	.0	36.8	23.8	26.3	.0
3.0	5.6	.0	.0	5.7	.0	2.6	.0
3.0	8.7	.0	.0	22.6	4.8	7.0	2.3
3.0	1.9	.0	.0	5.7	.0	.0	4.5
3.0	7.5	.0	.0	15.1	19.0	8.8	4.5
3.0	3.1	.0	6.3	.9	.0	.0	15.2
3.0	1.9	.0	.0	1.9	.0	.0	36.4
3.0	.6	3.4	.0	.9	.0	1.5	34.1
3.0	.0	.0	.0	.9	.0	.0	11.4
3.0	.0	.0	.0	.9	.0	.0	6.8
3.0	.0	.0	.0	.9	.0	.0	4.5
3.0	.0	.0	.0	.9	.0	.0	6.8
3.0	.0	.0	.0	.0	.0	.0	8.3
3.0	.0	.0	.0	.5	.0	.0	4.5
3.0	1.9	.0	.0	0.6	.0	.0	6.2
3.0	1.9	4.3	25.0	6.6	.0	1.8	19.2
3.0	1.9	.0	.0	1.9	.0	.0	22.7

POI MATCHED WITH SURVEY DATA

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D TSK	TITLES	FCPRTS PAGE 308				USAFOMC (ATC) RANDOLPH AFB TX			
		306	316	316	308	362	362	362	919
706		306	316	316	308	362	362	362	919
51		52	50F	52F	51	53	53	54	50
MM		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
U1354	U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?	7.0	4.3	3.4	.0	3.8	.0	.0	29.5
U1355	U1-52 DO YOU USE FOR MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?	7.0	3.7	.0	.0	3.8	.0	.0	29.5
U1363	U2-3 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS?	7.0	2.5	.0	.0	5.7	.0	.9	11.4
A 16	A2-5 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM DYNE?	1.5	5.0	6.9	.0	2.8	.0	4.4	29.5
D 200	D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS USING FORMULAS SUCH AS: SINE OF AND ANGLE = OPPOSITE SIDE/HYPOTENUSE?	1.5	1.9	.0	.0	2.8	.0	.0	13.6
F 296	F1-2 DO YOU INSPECT MICROPHONES?	1.5	3.7	.0	12.5	7.5	61.9	14.5	68.2
F 299	F1-5 DO YOU TROUBLESHOOT MICROPHONES WIRE CONNECTIONS?	1.5	3.7	.0	12.5	8.5	57.1	15.8	65.9
F 300	F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?	1.5	3.1	.0	6.3	4.7	23.8	4.4	38.6
F 301	F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?	1.5	3.7	.0	18.8	6.6	66.7	16.7	63.6
F 302	F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?	1.5	3.7	.0	12.5	5.7	19.0	4.4	40.9
F 303	F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?	1.5	2.5	3.4	.0	8.5	66.7	15.8	18.2
F 304	F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?	1.5	1.9	.0	.0	3.8	19.0	1.8	13.6
F 306	F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?	1.5	1.9	3.4	6.3	2.8	28.6	.9	36.4
F 323	F2-15 DO YOU PERFORM ANY TASKS ON SOFT IRON CORE SPEAKER PARTS?	1.5	1.9	.0	.0	1.9	4.8	.9	9.1
I 551	I3-2 DO YOU CHECK THE CONDITION OF ELECTRON TUBES?	1.5	11.2	.0	62.5	5.7	.0	.9	43.2
I 552	I3-3 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES?	1.5	3.1	.0	43.8	4.7	.0	.0	40.9
I 557	I3-8 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING?	1.5	2.5	.0	18.8	3.8	.0	1.8	31.8
I 558	I3-9 DO YOU USE OR REFER TO PEAK CURRENT RATING?	1.5	3.7	.0	18.8	2.8	4.8	1.8	29.5
I 561	I3-12 DO YOU USE OR REFER TO SATURATION?	1.5	5.0	.0	18.8	4.7	.0	.9	38.5
I 578	I3-29 DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?	1.5	5.0	.0	12.5	.9	4.8	.0	40.9
I 579	I3-30 DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?	1.5	5.0	.0	12.5	1.9	4.8	.0	40.9
I 582	I3-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	4.3	.0	43.8	2.8	4.8	.9	38.6
I 583	I3-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	5.0	.0	37.5	.0	4.8	.9	43.2
I 585	I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?	1.5	5.6	.0	50.0	2.8	.0	.0	43.2
I 588	I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?	1.5	1.9	.0	12.5	2.8	.0	.0	36.4
J 589	J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES, CONTINUE.	1.5	3.1	.0	6.3	3.8	.0	.9	31.8
J 596	J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)?	1.5	2.5	.0	25.0	3.8	.0	.9	43.2
J 598	J2-3 DO YOU WORK WITH BEAM POWER TUBES?	1.5	1.2	.0	.0	1.9	.0	.0	38.6
J 599	J2-4 DO YOU WORK WITH THYRATRODS?	1.5	1.9	.0	6.3	.0	.0	.0	31.8
J 604	J2-9 DO YOU USE OR REFER TO AQUA G COATINGS CONCERNING CRT'S?	1.5	1.9	.0	.0	.9	.0	.0	29.5
J 605	J2-10 DO YOU USE OR REFER TO ELECTRO-OPTICS CONCERNING CRT'S?	1.5	3.1	.0	6.3	1.9	.0	.0	38.6
J 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?	1.5	1.9	.0	.0	2.8	.0	.0	25.0
J 608	J2-13 DO YOU USE OR REFER TO FLOUORESCENCE CONCERNING CRT'S?	1.5	5.0	7.4	6.3	1.9	.0	.0	56.8
J 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?	1.5	3.1	.0	.0	1.9	.0	.0	25.0

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USAFOMC (ATC) PAMCOLPH AFB TX

D TSM	TITLES	306 FI #MM	306 (P)	316 52 (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0 856	01-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDE BAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	.0	.0	1.9	4.8	.0	.0
0 857	01-4 DO YOU ALIGN SINGLE SIDE BAND (SSE) OR INDEPENDENT SIDE BAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	3.4	.0	1.9	4.8	.0	.0
0 858	01-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDE BAND (ISE) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	10.3	.0	1.9	4.8	.0	.0
0 859	01-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDE BAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	1.5	1.2	3.4	.0	.0	4.8	.0	.0
0 863	01-10 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?	1.5	1.2	.0	.0	.0	.0	.0	.0
0 864	01-11 DO YOU PERFORM TASKS ON SSP OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?	1.5	1.2	.0	.0	.0	.0	.0	.0
0 865	01-12 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?	1.5	.6	.0	.0	.0	.0	.0	.0
0 869	01-16 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?	1.5	1.2	.0	.0	.9	.0	.0	.0
0 871	01-18 DO YOU PERFORM TASKS ON SSP OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?	1.5	1.2	6.9	.0	.0	.0	.0	.0
0 872	01-19 DO YOU PERFORM TASKS ON SSP OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?	1.5	.6	3.4	.0	.0	.0	.0	.0
0 875	01-22 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?	1.5	1.2	6.9	.0	.9	.0	.0	.0
0 881	01-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?	1.5	1.2	.0	.0	.0	.0	.0	.0
0 882	01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB RECEIVER SCHEMATIC DIAGRAMS?	1.5	.6	.0	.0	.0	.0	.0	.0
0 884	02-1 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 03-1; IF YES, CONTINUE.	1.5	1.9	.0	.0	2.8	.0	2.6	13.6
0 885	02-2 DO YOU INSPECT PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	1.8	13.6
0 886	02-3 DO YOU CLEAN PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	1.8	13.6
0 887	02-4 DO YOU ALIGN PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	.9	13.6
0 888	02-5 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS? COMPONENTS?	1.5	1.9	.0	.0	2.8	.0	2.6	13.6
0 889	02-6 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	.9	.0	1.6	13.6
0 890	02-7 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	2.6	11.4
0 891	02-8 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	.0	.0	1.8	13.6
0 892	02-9 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	1.9	.0	.0	15.9
0 894	02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	2.8	.0	.9	11.4
0 901	02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	1.5	.6	.0	.0	2.8	.0	.9	15.9
0 902	02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMER STAGE?	1.5	.0	.0	.0	.9	.0	.0	15.9
0 904	02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	1.5	.0	.0	.0	.9	.0	.0	13.6
0 906	02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PF AMPLIFIER STAGE?	1.5	.6	.0	.0	.0	.0	.0	13.6

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C	TSM	TITLES	306 51 #P#	306 52 (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0	907	02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	1.5	.6	.0	1.9	.0	.0	15.9
0	908	02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	1.5	.6	.0	1.9	.0	.0	13.6
0	909	02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	1.5	.6	.0	.0	.0	.9	15.9
0	910	02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	.6	.0	.9	.0	.0	13.6
0	911	02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.2	.0	.9	.0	.0	13.6
0	914	02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.9	.0	.0	15.9
0	915	02-32 DO YOU USE OR REFER TO PULSE SHAPE WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	1.2	.0	.0	.0	.0	15.9
0	918	02-35 DO YOU USE OR REFER TO DUTY CYCLE (DC) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	.6	.0	.0	.0	.0	11.4
0	919	02-36 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	1.5	.6	.0	.0	.0	.0	9.1
0	920	02-37 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	1.5	.6	.0	.0	.0	.0	11.4
0	921	02-38 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS?	1.5	.0	.0	.0	.0	.0	6.8
0	922	02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS?	1.5	1.2	.0	.9	.0	1.8	13.6
0	923	02-40 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS?	1.5	.6	.0	.9	.0	.9	13.6
0	924	03-1 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB? IF NO, GO TO ITEM P1-1; IF YES, CONTINUE.	1.5	5.6	20.7	.0	.0	1.8	6.8
0	925	03-2 DO YOU INSPECT ANTENNAS?	1.5	4.3	17.2	.0	.0	.9	6.8
0	926	03-3 DO YOU CLEAN ANTENNAS?	1.5	3.7	.0	.0	.0	.0	2.3
0	927	03-4 DO YOU PHYSICALLY ALIGN ANTENNAS?	1.5	3.1	6.9	.0	.0	.0	4.5
0	929	03-6 DO YOU TROUBLESHOOT TO ANTENNAS?	1.5	3.1	24.1	.0	.0	.0	4.5
0	931	03-8 DO YOU REMOVE OR INSTALL ANTENNAS?	1.5	3.1	.0	.0	.0	.0	4.5
0	935	03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS?	1.5	1.9	.0	.0	.0	.0	2.3
0	938	03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR?	1.5	.6	.0	.0	.0	.9	2.3
0	948	03-25 DO YOU WORK WITH END-FIRE ARRAYS?	1.5	1.2	3.4	.0	.0	.0	.0
0	949	03-26 DO YOU WORK WITH CARDIOID ARRAYS?	1.5	1.2	.0	.0	.0	.0	.0
0	950	03-27 DO YOU WORK WITH COLLINAR ARRAYS?	1.5	.6	.0	.0	.0	.0	.0
0	967	03-44 DO YOU WORK ON OMNIDIRECTIONAL ANTENNAS?	1.5	4.3	17.2	.0	.0	.0	4.5
0	970	P1-2 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE COPPER LOSS OR VSWR ? P* LOSS IN TRANSMISSION LINES?	1.5	1.9	.0	5.7	4.8	1.8	2.3
0	971	P1-3 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE SWR EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES?	1.5	.6	.0	6.6	.0	.0	2.3

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51 52 50F 52F 51 53 54 50
#M# (H) (H) (H) (H) (H) (H) (H)

O TSK TITLES

R1179 R1-3 PHANTASTRON CIRCUITRY HAS SEARCH-LOCK AUTOMATIC
FREQUENCY CONTROLS (AFC) APPLICATIONS IN MY JOB.
T1225 T1-10 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED
SYSTEMS?
T1228 T1-13 DO YOU USE OR REFER TO INTERMEDIATE REGIONS?
T1229 T1-14 DO YOU USE OR REFER TO NEAR REGIONS?
T1230 T1-15 DO YOU USE OR REFER TO MICRONS (M)?
T1231 T1-16 DO YOU USE OR REFER TO GRAY BODIES?
T1232 T1-17 DO YOU USE OR REFER TO BLACK BODIES?
T1233 T1-18 DO YOU USE OR REFER TO ABSORPTION?
T1234 T1-19 DO YOU USE OR REFER TO SCATTERING?
T1235 T1-20 DO YOU USE OR REFER TO ABSOLUTE ZERO?
T1250 T2-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS?
T1251 T2-8 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER
SYSTEMS?
T1253 T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER
SYSTEMS?
T1267 T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE)
MIRRORS?
T1268 T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE)
MIRRORS?
T1269 T2-26 DO YOU WORK WITH HELICAL FLASHTUBES?
T1271 T2-28 DO YOU WORK WITH HELIUM-NEON MATERIALS?
T1279 T3-2 DO YOU INSPECT DVST OR MMST?
T1280 T3-3 DO YOU CLEAN DVST OR MMST?
T1281 T3-4 DO YOU ADJUST OR CALIBRATE DVST OR MMST?
T1282 T3-5 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST?
T1283 T3-6 DO YOU TROUBLESHOOT DVST OR MMST CIRCUITS?
T1284 T3-7 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM MAJOR
ASSEMBLIES OR UNITS?
U1356 U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE
MICROPROCESSOR?
C 166 G2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?
D 247 G3-15 DO YOU WORK WITH YTTRIUM IRON GARNET (YIG) FILTERS?
F 297 F1-3 DO YOU CLEAN MICROPHONES?
F 305 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?
F 307 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?
F 308 F1-14 DO YOU PERFORM TASKS ON TRANSDUCERS?
F 318 F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?
F 319 F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?
F 320 F2-12 DO YOU PERFORM ANY TASKS ON VOICE COIL SPEAKER PARTS?
F 322 F2-14 DO YOU PERFORM ANY TASKS ON ELECTROMAGNET SPEAKER
PARTS?
G 401 G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?
G 402 G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?
G 406 G2-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF
CURVE TRACING?
I 556 I3-7 DO YOU USE OR REFER TO CUTOFF?
I 559 I3-10 DO YOU USE OR REFER TO TRANSIT TIME?

POI MATCHED WITH SURVEY DATA

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USAFOMC (AIC) RANDOLPH AFB TX

O TSK	TITLES	306 SI *M*	306 (M)	316 SOF (M)	316 (M)	362 (M)	362 (M)	362 (M)	51 (M)	54 (M)	918 (M)
I 560	I3-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING?	.0	1.9	.0	6.3	3.8	.0	1.8	.0	.0	20.5
I 562	I3-13 DO YOU USE OR REFER TO UC PLATE RESISTANCE?	.0	2.5	.0	6.3	2.8	.0	.9	.0	.0	25.0
I 563	I3-14 DO YOU USE OR REFER TO PLATE VOLTAGE?	.0	5.0	.0	50.0	4.7	.0	.9	.0	.0	47.7
I 564	I3-15 DO YOU USE OR REFER TO PLATE CURRENT?	.0	4.3	.0	18.8	1.9	.0	.9	.0	.0	38.6
I 565	I3-16 DO YOU USE OR REFER TO GRID VOLTAGE?	.0	5.6	.0	56.3	4.7	.0	1.8	.0	.0	47.7
I 566	I3-17 DO YOU USE OR REFER TO GRID CURRENT?	.0	5.0	.0	25.0	1.9	.0	.9	.0	.0	38.6
I 567	I3-18 DO YOU USE OR REFER TO CATHODE VOLTAGE?	.0	5.6	.0	62.5	4.7	.0	.9	.0	.0	47.7
I 568	I3-19 DO YOU USE OR REFER TO CATHODE CURRENT?	.0	5.0	.0	25.0	3.8	.0	.9	.0	.0	40.9
I 569	I3-20 DO YOU USE OR REFER TO FILAMENT VOLTAGE?	.0	5.0	.0	56.3	2.8	.0	.9	.0	.0	50.0
I 570	I3-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?	.0	1.2	.0	6.3	.9	.0	.0	.0	.0	20.5
I 571	I3-22 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?	.0	1.2	.0	.0	1.9	.0	1.8	.0	.0	25.0
I 572	I3-23 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)?	.0	.6	.0	.0	.9	.0	1.8	.0	.0	13.6
I 573	I3-24 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?	.0	1.2	.0	.0	.9	.0	1.8	.0	.0	11.4
I 574	I3-25 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?	.0	1.9	.0	.0	.9	.0	1.8	.0	.0	15.9
I 575	I3-26 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?	.0	1.2	.0	6.3	.9	.0	1.8	.0	.0	20.5
I 576	I3-27 DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?	.0	4.3	.0	37.5	1.9	.0	.9	.0	.0	36.4
I 577	I3-28 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	.0	3.7	.0	12.5	1.9	.0	.0	.0	.0	29.5
I 580	I3-31 DO YOU USE OR REFER TO GAIN?	.0	3.1	.0	43.8	.9	4.8	.0	.0	.0	26.4
I 581	I3-32 DO YOU USE OR REFER TO EFFICIENCY?	.0	2.5	.0	6.3	.9	4.8	.0	.0	.0	29.5
I 584	I3-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	.0	1.2	.0	18.8	.9	.0	.9	.0	.0	15.9
I 587	I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS?	.0	3.1	.0	18.8	3.8	.0	.0	.0	.0	45.5
J 590	J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	.0	1.2	.0	.0	.9	.0	.0	.0	.0	15.9
J 591	J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.0	.0	.0	18.2
J 592	J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	.0	1.2	.0	.9	.9	.0	.0	.0	.0	27.3
J 593	J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.0	.0	.0	20.5
J 594	J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	.0	.6	.0	.0	.9	.0	.9	.0	.0	20.5
J 595	J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE OF AMPLIFIER?	.0	1.2	.0	6.3	2.8	.0	.0	.0	.0	6.8
J 607	J2-12 DO YOU USE OR REFER TO LOGGY TIMES CONCERNING CRT'S?	.0	3.1	.0	.0	1.9	.0	.0	.0	.0	36.4
K 631	K1-14 DO YOU PERFORM TASKS OR IF AMPLIFIERS?	.0	.6	.0	.0	.0	.0	.0	.0	.0	6.8
K 634	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?	.0	1.9	.0	.0	1.9	.0	.9	.0	.0	6.8

POI MATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFECMC (ATC) RANDOLPH AFB TX

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OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

POI MATCHED WITH SURVEY DATA

D TSK	TITLES	FCPR'S PAGE 316				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX			
		306 51 #M#	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0 90E 02-22 DO YOU PERFORM TASKS ON: PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?		.0	.6	.0	.0	.9	.0	.0	11.4
0 910 02-27 DO YOU PERFORM TASKS ON: PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?		.0	1.2	.0	.0	.0	.0	.0	11.4
0 911 02-28 DO YOU PERFORM TASKS ON: PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIER STAGE?		.0	.6	.0	.0	.9	.0	.0	6.9
0 916 02-33 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?		.0	1.2	.0	.0	.0	.0	.0	13.6
0 917 02-34 DO YOU USE OR REFER TO AVERAGE POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?		.0	1.2	.0	.0	.0	.0	.0	11.4
0 929 03-5 DO YOU ELECTRICALLY ALIGN ANTENNAS?		.0	2.5	3.4	.0	.0	.0	.0	2.3
0 930 03-7 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS?		.0	1.9	6.9	.0	.0	.0	.0	4.5
0 932 03-9 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS?		.0	1.9	.0	.0	.0	.0	.0	4.5
0 933 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES?		.0	2.5	.0	.0	.0	.0	.0	2.3
0 934 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES?		.0	1.9	.0	.0	.0	.0	.0	2.3
0 936 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS RESISTIVE LOADS TO THE GENERATOR?		.0	1.2	.0	.0	.0	.0	.0	2.3
0 939 03-16 DO YOU WORK WITH HERTZ BASIC ANTENNAS?		.0	1.2	13.8	.0	.0	.0	.0	2.3
0 940 03-17 DO YOU WORK WITH MARCONI BASIC ANTENNAS?		.0	.6	3.4	.0	.0	.0	.0	.0
0 941 03-18 DO YOU WORK WITH PHONIC BASIC ANTENNAS?		.0	.6	.0	.0	.0	.0	.0	.0
0 942 03-19 DO YOU WORK WITH DIPOLE BASIC ANTENNAS?		.0	3.1	6.9	.0	.9	.0	.0	2.3
0 943 03-20 DO YOU WORK WITH SCIMITAR BASIC ANTENNAS?		.0	.0	.0	.0	.9	.0	.0	.0
0 944 03-21 DO YOU WORK WITH PARALOLIC BASIC ANTENNAS?		.0	3.1	.0	.0	.0	.0	.0	.0
0 945 03-22 DO YOU WORK WITH GROUND PLANE BASIC ANTENNAS?		.0	3.7	3.4	.0	.0	.0	.0	4.5
0 946 03-23 DO YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?		.0	2.5	6.9	.0	.0	.0	.0	2.3
0 947 03-24 DO YOU WORK WITH BROADSIDE ARRAYS?		.0	1.2	.0	.0	.0	.0	.0	.0
0 951 03-28 DO YOU WORK WITH PHASE ARRAYS?		.0	.0	.0	.0	.0	.0	.0	.0
0 952 03-29 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?		.0	.0	.0	.0	.0	.0	.0	4.5
0 953 03-30 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?		.0	.6	.0	.0	.0	.0	.0	.0
0 954 03-31 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?		.0	1.2	.0	.0	.0	.0	.0	4.5
0 955 03-32 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?		.0	.0	.0	.0	.0	.0	.0	.0
0 956 03-33 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?		.0	1.2	.0	.0	.0	.0	.0	2.3
0 957 03-34 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?		.0	1.2	.0	.0	.0	.0	.0	2.3
0 958 03-35 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?		.0	1.2	.0	.0	.0	.0	.0	2.3
0 959 03-36 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?		.0	.6	.0	.0	.0	.0	.0	.0
0 960 03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?		.0	.6	.0	.0	.0	.0	.0	2.3

POI PATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM USAFCMC (AIC) RANDOLPH AFB TX

POI TASK	TITLE	306	306 51 52 M	316 50F (M)	318 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
P1025	P2-26 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1026	P2-27 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS?	.0	.0	.0	.0	.0	.0	.9	4.5
P1027	P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OR .7 WAVELENGTHS OF THE OPERATING FREQUENCY?	.0	.0	.0	.0	.0	.0	.9	.0
P1028	P2-29 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 AS AN AVERAGE?	.0	.0	.0	.0	.0	.0	.9	.0
P1029	P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION?	.0	.0	.0	.0	.0	.0	.0	.0
P1030	P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0	2.6	.0
P1031	P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.9	.0
P1032	P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.9	.0
P1033	P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	4.5
P1034	P2-35 DO YOU WORK WITH HIGH POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1035	P2-36 DO YOU WORK WITH LOW POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1036	P2-37 DO YOU WORK WITH LOOP ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1037	P2-38 DO YOU WORK WITH APERATURES (WINDOWS OR IRISES) ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	2.3
P1038	P2-39 DO YOU WORK WITH CHOKE JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	.0
P1039	P2-40 DO YOU WORK WITH ROTATING JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	.0
P1040	P2-41 DO YOU WORK WITH JOINTS IN WAVEGUIDES OR CAVITY RESONATORS BUT DON'T KNOW WHICH KIND?	.0	.0	.0	.0	.0	.0	.0	6.8
P1041	P2-42 DO YOU TUNE CAVITY RESONATORS USING ELECTRICAL METHODS?	.0	.0	.0	.0	.0	.0	.0	6.8
P1042	P2-43 DO YOU TUNE CAVITY RESONATORS USING MECHANICAL METHODS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1043	P2-44 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	.0	4.5
P1044	P3-1 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS? IF NO, GO TO ITEM Q1-1; IF YES, CONTINUE.	.0	.6	.0	.0	.9	.0	.0	2.3
P1045	P3-2 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	.0	.0	.0	.0	.0	.0	.0	.0

POI MATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

C	TSK	TITLE	306	306 51 MM	306 52 (M)	316 50F (M)	320 51F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
P1081	P3-38	DO YOU REMOVE OR REPLACE COMPLETE MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1082	P3-39	DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1083	P3-40	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1084	P3-41	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1085	P3-42	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1086	P3-43	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FEEDBACK LOOP COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1087	P3-44	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF UPLIFT SPACE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1088	P3-45	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1089	P3-46	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1090	P3-47	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1091	P3-48	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1100	P3-57	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1101	P3-58	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1102	P3-59	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MODULATOR GRID COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1103	P3-60	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ANODE COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1104	P3-61	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF HELIX COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1105	P3-62	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1106	P3-63	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1107	P3-64	DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0	.0
P1108	P3-65	DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0
P1109	P3-66	DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.9	.0
P1110	P3-67	DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.9	.0
P1111	P3-68	DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.9	.0
P1112	P3-69	DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.9	.0
P1113	P3-70	DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	1.9	.0	.9	.0

OCCUPATIONAL ANALYSIS PROGRAM
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POI MATCHED WITH SUSPECT DATA

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306	316	326	336	346	356	366	376	386	396	406	416	426	436	446	456	466	476	486	496	506	516	526	536	546	556	566	576	586	596	606	616	626	636	646	656	666	676	686	696	706	716	726	736	746	756	766	776	786	796	806	816	826	836	846	856	866	876	886	896	906	916	926	936	946	956	966	976	986	996	1006	1016	1026	1036	1046	1056	1066	1076	1086	1096	1106	1116	1126	1136	1146	1156	1166	1176	1186	1196	1206	1216	1226	1236	1246	1256	1266	1276	1286	1296	1306	1316	1326	1336	1346	1356	1366	1376	1386	1396	1406	1416	1426	1436	1446	1456	1466	1476	1486	1496	1506	1516	1526	1536	1546	1556	1566	1576	1586	1596	1606	1616	1626	1636	1646	1656	1666	1676	1686	1696	1706	1716	1726	1736	1746	1756	1766	1776	1786	1796	1806	1816	1826	1836	1846	1856	1866	1876	1886	1896	1906	1916	1926	1936	1946	1956	1966	1976	1986	1996	2006	2016	2026	2036	2046	2056	2066	2076	2086	2096	2106	2116	2126	2136	2146	2156	2166	2176	2186	2196	2206	2216	2226	2236	2246	2256	2266	2276	2286	2296	2306	2316	2326	2336	2346	2356	2366	2376	2386	2396	2406	2416	2426	2436	2446	2456	2466	2476	2486	2496	2506	2516	2526	2536	2546	2556	2566	2576	2586	2596	2606	2616	2626	2636	2646	2656	2666	2676	2686	2696	2706	2716	2726	2736	2746	2756	2766	2776	2786	2796	2806	2816	2826	2836	2846	2856	2866	2876	2886	2896	2906	2916	2926	2936	2946	2956	2966	2976	2986	2996	3006	3016	3026	3036	3046	3056	3066	3076	3086	3096	3106	3116	3126	3136	3146	3156	3166	3176	3186	3196	3206	3216	3226	3236	3246	3256	3266	3276
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MSA 651 254

P1114 P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF
 MAGNETRONS?
 P1115 P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS
 OF MAGNETRONS?
 P1116 P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF
 MAGNETRONS?
 P1117 P3-74 DO YOU PERFORM TASKS ON HEATER LEAF COMPONENTS OF
 MAGNETRONS?
 P1118 P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF
 MAGNETRONS?
 P1119 P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF
 MAGNETRONS?
 P1120 P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF
 MAGNETRONS?
 Q11140 Q2-18 DO YOU USE OR REFER TO BUBBLE MEMORIES?
 Q11146 Q2-19 DO YOU USE OR REFER TO TRANSFORMER READ ONLY STORAGES
 (TROS)?
 Q11147 Q2-20 DO YOU USE OR REFER TO CAPACITY READ ONLY STORAGES
 (CROS)?
 Q11176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A
 "DN" PREFIX?
 S11209 S3-2 DO YOU USE OR REFER TO EXCITATION FREQUENCY CHOPPER
 COIL ITEMS?
 S11209 S3-3 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE
 RELATIONSHIP CHOPPER COIL ITEMS?
 S11210 S3-4 DO YOU MEASURE EXCITATION FREQUENCY CHOPPER COIL
 ITEMS?
 S11211 S3-5 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIP
 CHOPPER COIL ITEMS?
 S11212 S3-6 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT
 OPERATION?
 S11217 S3-7 DO YOU USE COLLECTORS IN CONJUNCTION WITH CHOPPER
 CIRCUIT OPERATION?
 S11218 S3-8 DO YOU USE EPCO SIGNAL DEVICES IN CONJUNCTION WITH
 CHOPPER CIRCUIT OPERATION?
 S11215 S3-9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH
 CHOPPER CIRCUIT OPERATION?
 P11210 T1-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH
 INFRARED SYSTEMS? IF NO, GO TO ITEM T2-1; IF YES,
 CONTINUE.
 T11217 T1-2 DO YOU INSPECT INFRARED SYSTEMS?
 T11218 T1-3 DO YOU CLEAN INFRARED SYSTEMS?
 T11219 T1-4 DO YOU SERVICE INFRARED SYSTEMS?
 T11220 T1-5 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS?
 T11221 T1-6 DO YOU OPERATE INFRARED SYSTEMS?
 T11222 T1-7 DO YOU TROUBLESHOOT CONNECTIONS OF INFRARED
 SYSTEMS?
 T11223 T1-8 DO YOU TROUBLESHOOT OR ASSEMBLE OF INFRARED
 SYSTEMS?

NOT MATCHED WITH SURVEY DATA

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

FCPTS PAGE 322

O TSK	TITLE	704	306	316	316	362	362	362	918
		51	52	50F	52F	51	53	54	50
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
Y1224	T1-9 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS?	.0	.6	.0	43.6	.0	.0	.0	9.1
Y1226	T1-11 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS?	.0	.6	.0	43.6	.0	.0	.0	9.1
Y1227	T1-12 DO YOU USE OR REFER TO FAR REGIONS?	.0	.0	.0	.0	.9	.0	.0	2.3
Y1236	T1-21 DO YOU PERFORM TASKS ON ELIIT?	.0	.0	.0	.0	.9	.0	.0	.0
Y1237	T1-22 DO YOU PERFORM TASKS ON TARGET BUTTONS?	.0	.0	3.4	.0	.9	.0	.0	.0
Y1238	T1-23 DO YOU PERFORM TASKS ON ERECTOR LENSES?	.0	.0	.0	.0	.9	.0	.0	.0
Y1239	T1-24 DO YOU PERFORM TASKS ON OCULAR LENSES?	.0	.0	.0	.0	.9	.0	.0	6.8
Y1240	T1-25 DO YOU PERFORM TASKS ON CORRECTION LENSES?	.0	.0	.0	6.3	.9	.0	.0	2.3
Y1241	T1-26 DO YOU PERFORM TASKS ON FILTERS?	.0	.0	.0	18.8	.9	.0	.0	6.8
Y1242	T1-27 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS?	.0	.0	.0	6.3	.9	.0	.0	2.3
Y1243	T1-28 DO YOU PERFORM TASKS ON PLANE MIRRORS?	.0	.0	.0	6.3	.9	.0	.0	4.5
Y1254	T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1255	T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS?	.0	.0	.0	.0	1.9	.0	.9	4.5
Y1256	T2-13 DO YOU USE OR REFER TO GROUND STATE?	.0	.0	.0	.0	1.9	.0	.9	4.5
Y1257	T2-14 DO YOU USE OR REFER TO EXCITED STATE?	.0	.0	.0	.0	1.9	.0	.9	4.5
Y1258	T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION?	.0	.0	.0	.0	1.9	.0	.9	4.5
Y1259	T2-16 DO YOU USE OR REFER TO PHOTONS?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1260	T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSIONS?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1261	T2-18 DO YOU USE OR REFER TO STIMULATED EMISSIONS?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1262	T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1263	T2-20 DO YOU USE OR REFER TO INVERSION LEVELS?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1264	T2-21 DO YOU USE OR REFER TO MONOCHROMATIC?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1265	T2-22 DO YOU WORK WITH ACTIVE MATERIALS?	.0	.0	.0	.0	.9	.0	.9	4.5
Y1266	T2-23 DO YOU WORK WITH PUMPING SOURCES?	.0	.6	.0	.0	1.9	.0	.9	2.3
Y1270	T2-27 DO YOU WORK WITH RUBY MATERIALS?	.0	.6	.0	.0	1.9	.0	.9	4.5
Y1272	T2-29 DO YOU WORK WITH HELIUM-XENON MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	2.3
Y1273	T2-30 DO YOU WORK WITH XENON MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	4.5
Y1274	T2-31 DO YOU WORK WITH CESIUM-HELIUM MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1275	T2-32 DO YOU WORK WITH ARGON MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	2.3
Y1276	T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1277	T2-34 DO YOU WORK WITH GALLIUM ARSENIDE MATERIALS?	.0	.0	.0	.0	1.9	.0	.9	2.3
Y1285	T3-8 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF DVST?	.0	.0	.0	.0	.7	.0	.7	.0
Y1286	T3-9 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MVS?	.0	.0	.0	.0	.0	.0	.9	.0
Y1287	T3-10 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF SCT?	.0	.0	.0	.0	.0	.0	.9	2.3
Y1288	T3-11 DO YOU PERFORM TASKS ON FLOOD GUNS?	.0	.0	.0	.0	.9	.0	.9	.0
Y1289	T3-12 DO YOU PERFORM TASKS ON WHITE GUNS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1290	T3-13 DO YOU PERFORM TASKS ON BEAC GUNS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1291	T3-14 DO YOU PERFORM TASKS ON ATTACK GUNS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1292	T3-15 DO YOU PERFORM TASKS ON PHASE GUNS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1293	T3-16 DO YOU PERFORM TASKS ON STORAGE GRIDS?	.0	.0	.0	.0	1.9	.0	.9	.0
Y1294	T4-1 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS BEARING WITH TELEVISION SYSTEMS INCLUDING LOW LIGHT TELEVISION? IF NOT GO TO ITEM 41-1; IF YES, CONTINUE.	.0	.6	.0	.0	1.9	.0	.9	2.3
Y1295	T4-2 DO YOU INSTRUCT TELEVISION SYSTEMS?	.0	1.2	1.2	4.7	.9	.0	.9	28.6
Y1296	T4-2 DO YOU INSTRUCT TELEVISION SYSTEMS?	.0	1.2	10.3	.0	.9	.0	.9	40.7

ELECTRONIC PRINCIPLES INVENTORY DATA OF C-LEVELS

SHEP EPI CAREER LADDER, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OF PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA: THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATR 52-22 FOR AER TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMYO, AUTOVON 487-5811.

VECTOR TYPE CODES:

- (T) = 2 TIME SPENT BY ALL MEMBERS
- (M) = 2 MEMBERS PERFORMING
- (F) = TASK FACTOR
- (D) = DICHOTOMOUS SET
- (B) = 2 TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	/MEMBERS/		DESCRIPTION	FACTOR #
			MCAN	SD		
1	M	306 51	66		DAFSC 30651 AIRMEN	2
2	M	306 52	161		DAFSC 30652 AIRMEN	4
3	M	31650F	29		DAFSC 31650F AIRMEN	6
4	M	31652F	16		DAFSC 31652F AIRMEN	8
5	M	362 51	106		DAFSC 36251 AIRMEN	10
6	M	362 53	21		DAFSC 36253 AIRMEN	12
7	M	362 54	114		DAFSC 36254 AIRMEN	14
8	M	918 50	44		DAFSC 91850 AIRMEN	16

SHEP EPI CAREER LADDER, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CATEGORICAL GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OF PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA. THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATRC 52-22 FOR ABR TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMYO, AUTOVON 487-5811.

D TSK	TITLES	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
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A MATHEMATICS (A1), DIRECT CURRENT (A2), RESISTANCE AND
RESISTIVE CIRCUITS (A3)

A 1	A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?	69.7	73.9	65.5	81.3	69.8	71.4	48.2	97.7
A 2	A1-2 DO YOU USE PUBLICATIONS, SUCH AS TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB?	33.3	32.3	27.6	6A.8	34.9	47.6	21.1	70.5
A 3	A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?	27.3	13.7	13.8	6A.8	17.0	4.8	8.8	77.3
A 4	A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?	7.6	6.2	.0	12.5	7.5	.0	3.5	36.4
A 5	A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $x + 6 = 8$?	15.2	11.2	10.3	43.8	17.9	4.8	10.5	68.2
A 6	A1-6 DO YOU USE LOGARITHM TABLES?	3.0	3.1	.0	.0	3.8	4.8	1.8	15.9
A 7	A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $x^2 + 4x + 4 = 0$?	3.0	2.5	.0	.0	4.7	.0	2.6	27.3
A 8	A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?	3.0	4.3	.0	6.3	1.9	4.8	.9	19.2
A 9	A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?	7.6	4.3	.0	6.3	2.8	4.8	1.8	15.9
A 10	A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS 2 : 5 :: 4 : 10. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS $2/5 = 4/10$. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS 2 : x :: 4 : 10 (x IN THIS CASE IS UNKNOWN).	15.2	9.9	10.3	37.5	9.4	23.8	5.3	61.4
A 11	A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?	31.8	13.0	6.9	37.5	12.3	9.5	7.5	54.5
A 12	A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?	92.4	95.7	100.0	100.0	94.3	100.0	95.6	100.0

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306 306 316 316 362 362 362 918
51 52 50F 51 53 54 50
(M) (M) (M) (M) (M) (M)

C TSM

TITLES

- A 13 A2-2 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM ELECTROSTATIC FORCE (EMF)?
- A 14 A2-3 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM OHM?
- A 15 A2-4 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM ION?
- A 16 A2-5 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM DYNE?
- A 17 A2-6 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM AMPERE?
- A 18 A2-7 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM NEUTRON?
- A 19 A2-8 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM COULOMB?
- A 20 A2-9 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM PROTON?
- A 21 A2-10 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM ELECTRON?
- A 22 A2-11 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM CURRENT?
- A 23 A2-12 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE)
THE TERM WATTAGE?
- A 24 A2-13 DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE
CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC
VOLTAGE AND/OR CURRENT?
- A 25 A3-1 DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN
YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES,
CONTINUE.
- A 26 A3-2 DO YOU INSPECT RESISTORS?
- A 27 A3-3 DO YOU CLEAN RESISTORS?

30.4 49.7 13.6 25.0 38.7 38.1 27.2 72.7

36.4 91.9 89.7 100.0 91.5 90.5 83.3 100.0

6.1 7.5 10.3 81.3 7.5 .0 3.5 72.7

1.5 5.0 6.9 .0 2.8 .0 4.4 29.5

83.3 88.8 75.9 87.5 87.7 85.7 73.7 100.0

18.2 14.9 6.9 18.8 13.2 .0 4.4 54.5

6.1 8.1 6.9 6.3 5.7 9.5 .9 54.5

19.7 16.1 3.4 18.8 16.0 .0 2.5 56.8

40.0 42.9 24.1 56.3 30.2 33.3 10.5 72.7

89.4 92.5 89.7 100.0 88.7 95.2 82.5 100.0

60.6 73.9 89.7 81.3 60.4 66.7 43.9 97.7

24.2 34.2 17.2 56.3 48.1 28.6 33.3 79.5

80.3 78.3 17.2 62.5 68.9 71.4 43.0 77.3

83.3 82.6 3.4 81.3 60.4 85.7 36.0 90.9

63.6 62.7 3.4 64.8 41.5 66.7 15.6 72.7

D TASK TITLES

- A 28 A3-4 DO YOU ADJUST RESISTORS?
A 29 A3-5 DO YOU MEASURE RESISTORS?
A 30 A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS? ANY TASK YOU PERFORM?
A 31 A3-7 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY CARBON?
A 32 A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED WIPE?
A 33 A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?
A 34 A3-10 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY PNEOSTAT?
A 35 A3-11 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY POTENTIOMETER?
A 36 A3-12 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?
A 37 A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE?
A 38 A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?
A 39 A3-15 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?
A 40 A3-16 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?
A 41 A3-17 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
A 42 A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?

706 51 (M)	306 52 (M)	316 50F (M)	327 52F (M)	362 51 (M)	362 54 (M)	918 50 (M)
80.3	77.0	6.9	75.0	47.2	76.2	20.2
81.8	80.7	13.8	81.3	66.0	85.7	33.3
19.7	17.4	.0	25.0	15.1	4.8	2.6
27.3	37.3	6.9	56.3	46.2	42.9	21.9
62.1	61.5	6.9	62.5	67.0	61.9	36.0
16.7	29.2	.0	56.3	23.6	33.3	7.9
50.0	57.8	10.3	75.0	63.2	61.9	37.7
84.8	77.0	13.3	75.0	63.2	66.7	32.5
16.7	9.3	3.4	31.3	13.2	19.0	2.6
78.8	74.5	6.9	75.0	59.4	76.2	23.7
68.2	64.0	3.4	62.5	48.1	71.4	12.3
30.3	30.4	3.4	50.0	25.5	33.3	6.1
84.8	82.6	27.6	75.0	74.5	76.2	48.2
59.1	54.7	13.8	56.3	53.8	61.9	33.3
53.0	54.7	10.3	56.3	50.9	42.9	33.3

88.6
88.6

306	306	316	316	362	362	362	362	918
51	52	50F	52F	51	53	54	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)

TITLES

- A 43 A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
- A 44 A3-20 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES RESISTIVE CIRCUITS?
- A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
SERIES PARALLEL RESISTIVE CIRCUITS?
- A 47 A3-23 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 50 A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
- A 51 A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
PARALLEL RESISTIVE CIRCUITS?
- A 52 A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
- A 53 A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
- A 54 A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
- A 55 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?
- A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES
RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

56.1	56.5	13.8	50.0	45.3	42.9	27.2	95.5
40.0	41.0	13.8	50.0	33.0	23.8	12.3	72.7
51.5	52.8	13.8	37.5	49.1	61.9	26.3	84.1
47.0	54.0	10.3	43.8	48.1	47.6	27.2	86.4
47.0	56.5	13.8	37.5	41.5	42.9	20.2	95.5
42.4	47.2	6.9	31.3	35.8	33.3	19.3	88.6
37.0	41.0	10.3	31.3	31.1	23.8	10.5	72.7
53.0	51.6	13.8	37.5	46.2	57.1	20.2	81.9
48.5	52.8	10.3	37.5	46.2	42.9	21.9	84.1
45.5	52.8	10.3	37.5	39.6	38.1	17.5	88.6
39.4	45.3	6.9	31.3	36.8	28.6	15.8	86.4
34.8	37.3	10.3	31.3	32.1	19.0	9.6	70.5
45.5	44.7	10.3	37.5	42.5	47.6	16.7	79.5
39.4	42.2	10.3	37.5	41.5	23.8	16.7	61.8

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

FCPR16 PAGE 329

D TSP TITLES

A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

D METERS/MULTIMETERS (D1), ALTERNATING CURRENT (AC) (B2),
INDUCTORS AND INDUCTIVE REACTANCE (B3)

E 60 E1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE RESISTANCE?
E 61 E1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE VOLTAGE?
E 62 E1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE CURRENT?
E 63 E1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE POWER?
E 64 E1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE FREQUENCY?
E 65 E1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE TEMPERATURE?
E 66 E1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE PRESSURE?

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
37.9	42.9	6.9	37.5	38.7	23.9	13.2	88.6
31.8	36.6	6.9	37.5	34.9	19.0	12.3	81.8
25.8	30.4	6.9	31.3	30.2	14.3	7.9	70.5
81.8	88.2	82.8	87.5	90.6	85.7	74.6	100.0
86.4	91.3	93.1	87.5	90.6	85.7	80.7	100.0
71.2	84.5	51.7	81.3	84.0	66.7	68.4	97.7
36.4	47.2	34.5	31.3	52.8	42.9	37.7	59.1
68.2	49.1	34.5	75.0	68.9	71.4	25.4	84.1
24.2	7.5	37.9	81.3	38.7	28.6	5.3	86.4
36.4	8.7	44.8	56.3	25.5	4.8	6.1	72.7

D TSM TITLES

B 67 91-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE LIGHT LEVELS?
B 68 92-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?
B 69 92-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?
B 70 92-3 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM AVERAGE VOLTAGE (DC) IN YOUR PRESENT JOB?
B 71 92-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM WAVE LENGTH IN YOUR PRESENT JOB?
B 72 92-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM FREQUENCY IN YOUR PRESENT JOB?
B 73 92-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?
B 74 92-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?
B 75 93-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING
INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM C1-1; IF YES, CONTINUE.
B 76 93-2 DO YOU INSPECT INDUCTORS?
B 77 93-3 DO YOU CLEAN INDUCTORS?
B 78 93-4 DO YOU ADJUST INDUCTORS?
B 79 93-5 DO YOU MEASURE INDUCTORS?
B 80 93-6 DO YOU USE OR REFER TO INDUCTANCE?
B 81 93-7 DO YOU USE OR REFER TO HENRIES?
B 82 93-8 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?
B 83 93-9 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?
B 84 93-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?
B 85 93-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN
INDUCTORS?

306	306	316	316	362	362	362	362	918
51	52	50F	52F	51	53	54	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
33.3	1.9	6.9	.0	1.9	.0	6.1	47.7	
45.5	47.8	20.7	37.5	26.4	52.4	16.7	90.9	
80.3	68.9	13.8	81.3	30.2	76.2	14.9	93.2	
51.5	62.1	31.0	75.0	43.4	57.1	28.9	86.4	
53.0	46.0	13.8	75.0	36.8	47.6	7.9	81.8	
72.7	59.6	51.7	68.8	63.2	90.5	20.2	93.2	
12.1	13.7	3.4	14.8	10.4	.0	.9	52.3	
54.5	37.3	27.6	50.0	21.7	23.8	5.3	88.6	
37.9	36.6	6.9	37.5	21.7	14.3	12.3	68.2	
40.0	38.5	.0	56.3	18.9	14.3	7.9	75.0	
31.8	28.6	.0	56.3	14.2	9.5	6.1	59.1	
18.2	19.3	3.4	43.8	13.2	.0	1.8	56.8	
25.8	28.0	.0	43.8	17.0	9.5	3.5	61.4	
31.8	31.7	.0	50.0	21.7	14.3	6.1	81.8	
21.2	20.5	.0	18.8	13.2	4.8	1.6	68.2	
13.6	18.6	.0	18.8	17.0	9.5	1.8	63.6	
6.1	3.7	.0	.0	7.5	.0	.9	36.4	
6.1	5.0	.0	.0	3.8	.0	.9	34.1	
4.5	6.2	.0	.0	9.4	.0	.9	38.6	

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D TSK TITLES

- B 86 B3-12 DO YOU USE CP REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL?
- B 87 B3-13 DO YOU USE CP REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE?
- B 88 B3-14 DO YOU USE CP REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?
- B 89 B3-15 DO YOU USE CP REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL?
- B 90 B3-16 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?
- B 91 B3-17 DO YOU USE CP REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?
- B 92 B3-18 DO YOU CALCULATE INDUCTIVE REACTANCE?
- B 93 B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?
- B 94 B3-20 DO YOU WORK WITH POWER INDUCTORS?
- B 95 B3-21 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?
- B 96 B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?

306	306	316	362	362	362	918
51	52	50F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)
10.6	9.9	.0	.0	12.3	4.6	2.6
						36.4
6.1	7.5	.0	.0	10.4	4.6	1.8
						31.8
4.5	6.8	.0	6.3	9.4	4.8	1.8
						29.5
7.6	8.1	.0	6.3	11.3	4.8	2.6
						36.4
4.5	9.3	.0	37.5	10.4	.0	4.4
						36.4
12.1	18.0	.0	12.5	14.2	14.3	4.4
						61.4
7.6	9.3	.0	6.3	10.4	.0	3.5
						40.9
6.1	9.3	.0	6.3	16.0	9.5	2.6
						43.2
25.8	26.1	6.9	31.3	13.2	4.8	4.4
						63.6
16.7	11.2	3.4	.0	16.0	9.5	6.1
						52.3
13.6	9.3	3.4	.0	7.5	.0	.9
						50.0

C CAPACITORS AND CAPACITIVE REACTANCE (C1), TRANSFORMERS (C2),
MAGNETISM (C3)

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

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706 306 316 362 362 362 918
51 52 50F 51 53 54 50
(M) (M) (M) (M) (M) (M) (M)

O TSK TITLES

C 97 C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING
CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1;
IF YES, CONTINUE.

C 98 C1-2 DO YOU INSPECT CAPACITORS?

C 99 C1-3 DO YOU CLEAN CAPACITORS?

C 100 C1-4 DO YOU ADJUST CAPACITORS?

C 101 C1-5 DO YOU TEST CAPACITORS?

C 102 C1-6 DO YOU DISCHARGE CAPACITORS?

C 103 C1-7 DO YOU MEASURE CAPACITORS?

C 104 C1-8 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?

C 105 C1-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN
A DIELECTRIC?

C 106 C1-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR
PICOFARADS?

C 107 C1-11 DO YOU USE OR REFER TO CAPACITANCE?

C 108 C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?

C 109 C1-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF
CAPACITORS?

C 110 C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?

C 111 C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?

C 113 C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC
AND AC?

C 115 C1-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC
CIRCUITS?

C 116 C1-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT
CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE
DIELECTRIC CONSTANT?

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAF/GMC (ATC) RANDOLPH AFB TX

D TSM	TITLES	FCPRT6 PAGE 133				OCCUPATIONAL ANALYSIS PROGRAM USAF/GMC (ATC) RANDOLPH AFB TX			
		306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
C 117	C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?	9.1	6.8	.0	6.3	15.1	.0	3.5	27.3
C 118	C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?	36.4	38.5	6.9	43.8	31.1	28.6	17.5	72.7
C 119	C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?	18.2	24.2	.0	18.8	23.6	23.8	10.5	61.4
C 120	C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?	12.1	13.7	.0	.0	18.9	9.5	7.0	43.2
C 121	C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?	12.1	8.1	.0	6.3	14.2	.0	3.5	40.2
C 122	C1-26 DO YOU WORK WITH VARIABLE CAPACITORS?	27.3	25.5	.0	31.3	17.9	14.3	13.2	77.3
C 123	C1-27 DO YOU WORK WITH TRIMMER CAPACITORS?	12.1	14.3	.0	18.8	8.5	.0	2.6	68.2
C 124	C1-28 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?	84.8	75.8	3.4	68.8	50.9	71.4	31.6	90.9
C 125	C1-29 DO YOU WORK WITH OTHER FIXED CAPACITORS?	72.7	68.9	3.4	81.3	47.2	57.1	33.3	95.5
C 126	C2-1 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C3-1; IF YES, CONTINUE.	71.2	67.7	27.6	75.0	28.3	57.1	24.6	93.2
C 127	C2-2 DO YOU INSPECT TRANSFORMERS?	69.7	67.7	6.9	68.8	26.4	66.7	21.9	95.5
C 128	C2-3 DO YOU CLEAN TRANSFORMERS?	51.5	59.0	.0	68.8	20.8	47.6	14.9	72.7
C 129	C2-4 DO YOU ADJUST TRANSFORMERS?	19.7	24.8	.0	43.8	12.3	9.5	3.5	65.9
C 130	C2-5 DO YOU TROUBLESHOOT TRANSFORMERS?	60.6	55.3	10.3	50.0	17.0	42.9	12.3	93.2
C 131	C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)?	3.0	3.1	.0	.0	4.7	.0	.0	18.2
C 132	C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?	4.5	3.1	.0	6.3	3.8	.0	1.8	15.9
C 133	C2-8 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS?	6.1	6.2	.0	6.3	4.7	4.8	.0	29.5
C 134	C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS?	13.6	11.2	.0	18.8	4.7	14.3	2.6	59.1

D TSK TITLES

C 135	C2-10	DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS?	306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
C 136	C2-11	DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS?	13.6	9.3	.0	.0	3.8	4.8	1.8	22.7
C 137	C2-12	DO YOU WORK WITH AUTOTRANSFORMERS?	6.1	2.5	.0	.0	5.7	.0	.0	13.6
C 138	C2-13	DO YOU WORK WITH POWER TRANSFORMERS?	7.6	6.8	.0	.0	18.8	4.7	9.5	88.6
C 139	C2-14	DO YOU WORK WITH AUDIO TRANSFORMERS?	74.2	68.3	17.2	68.8	27.4	52.4	20.2	93.2
C 140	C2-15	DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?	18.2	14.3	6.9	12.5	15.1	47.6	10.5	65.9
C 141	C2-16	DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?	12.1	7.5	6.9	6.3	2.8	.0	.9	52.3
C 142	C2-17	DO YOU WORK WITH SENSING TRANSFORMERS?	3.0	4.3	.0	25.0	2.8	.0	.0	36.4
C 143	C2-18	DO YOU WORK WITH CONTROL TRANSFORMERS?	6.1	3.1	3.4	18.8	4.7	.0	.9	31.8
C 144	C2-19	DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	13.6	9.3	3.4	25.0	8.5	.0	2.6	59.1
C 145	C2-20	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	56.1	60.2	3.4	62.5	25.5	47.6	11.4	93.2
C 146	C2-21	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	53.0	55.9	3.4	56.3	23.6	47.6	13.2	84.1
C 147	C2-22	DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	59.1	50.3	3.4	43.8	18.9	38.1	12.3	81.9
C 148	C2-23	DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	19.7	26.1	.0	6.3	9.4	19.0	2.6	50.0
C 149	C2-24	DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?	27.3	35.4	.0	12.5	13.2	33.3	4.4	86.4
C 150	C2-25	DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	74.2	69.6	24.1	75.0	29.2	66.7	20.2	95.5
C 151	C2-26	DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	62.1	46.0	10.3	68.8	20.8	38.1	11.4	95.5
C 152	C2-27	DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	59.5	52.2	13.8	62.5	18.9	33.3	8.8	95.5
			69.7	62.7	13.8	68.8	23.6	38.1	8.8	95.5

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) FANDOLPH AFB TX

C ISM	TITLES	FCPRT6 PAGE				325				OCCUPATIONAL ANALYSIS PROGRAM			
		306 E1 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)				
C 153	C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	27.3	16.1	6.9	25.0	13.2	14.3	4.4	59.1				
C 154	C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	37.9	24.2	3.4	25.0	17.9	23.8	8.8	70.5				
C 155	C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?	19.7	27.3	3.4	56.3	17.0	23.8	5.3	86.4				
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	45.5	36.0	10.3	62.5	16.0	38.1	7.9	90.9				
C 157	C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?	34.8	23.6	3.4	25.0	11.3	19.0	4.4	81.9				
C 158	C2-33 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH?	22.7	8.1	.0	12.5	6.6	4.8	2.6	36.4				
C 159	C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	16.7	12.4	.0	14.8	4.7	14.3	.9	65.9				
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	28.8	36.0	.0	31.3	9.4	23.8	6.1	86.4				
C 161	C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	15.2	7.5	.0	6.3	2.8	14.3	.0	52.3				
C 162	C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	10.6	6.2	.0	6.3	2.8	4.8	.0	34.1				
C 163	C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?	16.7	6.2	13.8	43.8	5.7	.0	.0	81.8				
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	13.6	5.6	6.9	31.3	7.5	.0	1.8	77.3				
C 165	C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?	6.1	3.7	.0	6.3	5.7	.0	.9	56.8				
C 166	C2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?	.0	3.1	.0	6.3	5.7	.0	.9	56.8				
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	7.6	3.7	.0	31.3	5.7	.0	.9	72.7				
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	27.3	44.7	10.3	31.3	20.8	23.8	17.5	56.8				
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	34.8	39.1	3.4	37.5	29.2	28.6	14.0	45.5				

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
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D TSM	TITLES	306 (M)	306 (H)	316 (M)	316 (H)	362 (M)	362 (H)	51 (M)	51 (H)	53 (M)	53 (H)	54 (M)	54 (H)	918 (M)	918 (H)
C 170	C3-3 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS?	10.6	8.7	3.4	6.3	19.8	.0	2.6	20.5						
C 171	C3-4 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	16.7	11.2	3.4	6.3	13.2	.0	2.6	22.7						
C 172	C3-5 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	12.1	10.6	3.4	6.3	14.2	.0	3.5	25.0						
C 173	C3-6 DO YOU USE OR REFER TO RESIDUAL MAGNETISM?	13.6	20.5	3.4	12.5	57.5	14.3	6.1	29.5						
C 174	C3-7 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?	21.2	18.6	6.9	12.5	17.9	4.8	6.1	47.7						
C 175	C3-8 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?	6.1	3.7	.0	.0	3.8	.0	3.5	15.9						
C 176	C3-9 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM?	3.0	3.7	.0	6.3	4.7	.0	2.6	15.9						
C 177	C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION?	22.7	21.7	3.4	6.3	18.9	9.5	10.5	45.5						
C 178	C3-11 DO YOU USE OR REFER TO FLUX DENSITY?	10.6	5.6	.0	6.3	6.6	.0	1.8	15.9						
C 179	C3-12 DO YOU USE OR REFER TO SATURABLE REACTANCE?	4.5	3.7	.0	6.3	9.4	.0	1.8	18.2						
D	RCL CIRCUITS (D1), TIME CONSTANTS (D2), FILTERS (D3)														
D 180	D1-1 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.	31.8	25.5	3.4	12.5	9.4	14.3	4.4	77.3						
D 181	D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?	4.5	3.1	.0	.0	2.8	4.8	.0	29.5						
D 182	D1-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?	6.1	3.7	.0	.0	4.7	4.8	.0	22.7						
D 183	D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?	7.6	1.9	.0	6.3	4.7	.0	.0	25.0						
D 184	D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?	6.1	1.9	.0	6.3	4.7	.0	.0	22.7						

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

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TSK TITLES

TSK	TITLES	704 (M)	306 (M)	316 SOF (M)	316 (M)	362 51 (M)	362 52 (M)	362 54 (M)	918 50 (M)
D 185	D1-6 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS?	7.0	1.9	.0	.0	4.7	.0	.0	27.3
D 186	D1-7 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS?	16.7	16.1	2.4	18.8	6.6	4.3	2.6	54.5
D 187	D1-8 DO YOU USE OR REFER TO TRUE POWER (P SUB T) WHEN WORKING WITH RCL CIRCUITS?	6.1	6.2	.0	.0	4.7	.0	.9	29.5
D 188	D1-9 DO YOU USE OR REFER TO MAXIMUM POWER (P SUB M) WHEN WORKING WITH RCL CIRCUITS?	4.5	5.6	.0	.0	5.7	.0	.0	27.3
D 189	D1-10 DO YOU USE OR REFER TO AVERAGE POWER (P SUB AVE) WHEN WORKING WITH RCL CIRCUITS?	6.1	6.2	.0	.0	4.7	.0	.0	31.8
D 190	D1-11 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) WHEN WORKING WITH RCL CIRCUITS?	3.0	5.0	.0	.0	4.7	.0	.0	20.5
D 191	D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS?	4.5	6.2	.0	.0	4.7	.0	.0	25.0
D 192	D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	12.1	8.1	.0	6.3	5.7	4.8	2.6	54.5
D 193	D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS?	7.6	5.6	.0	12.5	1.9	4.8	.0	40.9
D 194	D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS?	6.1	4.3	.0	6.3	3.8	9.5	.0	29.5
D 195	D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS?	10.6	6.2	.0	12.5	3.8	4.9	.0	52.3
D 196	D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS?	4.5	4.3	.0	6.3	1.9	.0	.0	29.5
D 197	D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS?	3.0	4.3	.0	.0	1.9	.0	.0	38.6
D 198	D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS?	6.1	1.9	.0	.0	.9	.0	.0	22.7
D 199	D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS?	16.7	11.8	.0	6.3	1.9	.0	.0	63.6

D TSK	TITLES	FCPRT6 PAGE 339				USAFOMC (ATC) RANDOLPH AFB TX			
		306 (M)	316 (M)	326 (M)	336 (M)	346 (M)	356 (M)	366 (M)	376 (M)
0 216	01-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?	13.6	13.0	.0	6.3	3.9	14.3	3.5	50.0
0 217	01-38 DO YOU CHECK RESISTORS USING OHMMETERS?	37.9	27.3	.0	25.0	12.3	28.6	7.0	77.3
0 218	01-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?	18.2	13.7	.0	6.3	3.9	19.0	3.5	52.3
0 219	01-40 DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE (THETA) = 0, POWER FACTOR (PF) = 1, AND APPARENT POWER (P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?	3.0	3.1	.0	.0	2.8	.0	.9	13.6
0 220	01-41 DO YOU USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS?	6.1	6.2	.0	6.3	4.7	.0	1.8	50.0
0 221	01-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS?	6.1	5.6	.0	6.3	3.2	.0	.9	43.2
0 222	01-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS?	6.1	5.6	.0	.0	1.9	.0	.0	36.4
0 223	01-44 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 OF THE PEAK CURRENT VALUE?	6.1	6.2	.0	.0	1.9	.0	.0	38.6
0 224	01-45 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL (Q)?	1.5	3.7	.0	.0	.9	.0	.0	27.3
0 225	01-46 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS?	6.1	6.2	.0	.0	4.7	9.5	.0	31.8
0 226	02-1 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS? IF NO, GO TO ITEM D3-1; IF YES, CONTINUE.	10.6	5.6	.0	.0	2.8	.0	.0	38.6
0 227	02-2 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)?	10.6	3.7	.0	.0	3.8	.0	.9	34.1
0 228	02-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?	4.5	3.7	3.4	.0	.9	.0	.9	22.7

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

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D TSK TITLES

D TSK	TITLES	306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
D 229	D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS?	4.5	3.1	.0	.0	.9	.0	.9	22.7
D 230	D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS?	6.1	3.7	.0	.0	.9	.0	.0	29.5
D 231	D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES?	7.0	4.3	.0	.0	.9	.0	.0	22.7
D 232	D2-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS?	4.5	3.1	.0	.0	1.9	.0	.0	29.5
D 233	D3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.	68.2	42.2	6.9	31.3	11.3	57.1	18.4	75.0
D 234	D3-2 DO YOU INSPECT FILTER CIRCUITS?	54.5	36.6	.0	31.3	8.5	42.9	10.5	70.5
D 235	D3-3 DO YOU CLEAN FILTER CIRCUITS?	47.0	31.1	.0	25.0	8.5	33.3	7.9	52.3
D 236	D3-4 DO YOU ALIGN OR ADJUST FILTER CIRCUITS?	28.8	16.1	.0	25.0	5.7	28.6	5.3	68.2
D 237	D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?	56.1	29.8	.0	31.3	5.7	47.6	12.3	77.3
D 238	D3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?	57.6	31.7	6.9	25.0	4.7	14.3	7.0	77.3
D 239	D3-7 DO YOU WORK WITH LOW PASS FILTERS?	34.8	20.5	.0	12.5	2.8	52.4	.9	61.4
D 240	D3-8 DO YOU WORK WITH HIGH PASS FILTERS?	24.2	16.8	.0	12.5	4.7	28.6	.9	61.4
D 241	D3-9 DO YOU WORK WITH BANDPASS FILTERS?	18.2	6.2	.0	6.3	3.8	14.3	2.6	52.3
D 242	D3-10 DO YOU WORK WITH BAND-REJECT FILTERS?	7.6	3.7	.0	12.5	3.8	4.8	.9	31.8
D 243	D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?	31.8	22.4	6.9	25.0	7.5	9.5	14.0	29.5
D 244	D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?	24.2	9.3	.0	6.3	.9	4.8	2.6	38.6
D 245	D3-13 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?	18.2	8.1	.0	12.5	.9	.0	1.8	36.4
D 246	D3-14 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?	18.2	8.7	.0	6.3	1.9	.0	1.8	34.1

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306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
.0	.0	.0	6.3	.9	.0	.0	9.1
9.1	1.9	.0	6.3	1.9	.0	.9	18.2

D TSK TITLES

D 247 D3-15 DO YOU WORK WITH YTTRIUM IRON GARNET (YIG) FILTERS?
 D 248 D3-16 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
 CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC
 FILTERS?

E COUPLING (E1), SOLDERING OR SOLDERLESS CONNECTIONS(E2),
 RELAYS (E3)

E 249 E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR
 PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.
 E 250 E1-2 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
 THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC
 COUPLING?
 E 251 E1-3 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
 THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
 IMPEDANCE COUPLING (MATCHING)?
 E 252 E1-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
 THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
 OPTICAL COUPLING?
 E 253 E1-5 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
 THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
 TRANSFORMER COUPLING?
 E 254 E1-6 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
 WHICH PERFORM RC COUPLING?
 E 255 E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
 WHICH PERFORM IMPEDANCE COUPLING?
 E 256 E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
 WHICH PERFORM TRANSFORMER COUPLING?

45.5	24.2	.0	18.8	7.5	14.3	7.9	79.5
47.0	19.9	.0	25.0	4.7	9.5	.9	77.3
37.9	14.9	.0	6.3	4.7	14.3	5.3	68.2
4.5	7.5	.0	6.3	2.8	.0	.0	45.5
24.2	19.3	.0	18.8	5.7	14.3	4.4	68.2
47.0	19.9	.0	18.8	5.7	9.5	.9	81.8
36.4	13.7	.0	6.3	6.6	14.3	6.1	72.7
27.3	17.4	.0	18.8	7.5	14.3	4.4	70.5

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D TASK TITLES

D TASK	TITLES	306	306	316	316	362	362	362	362	918
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
E 257	E1-9 DO YOU WORK WITH DIRECT COUPLED CIRCUITS?	37.9	22.4	.0	18.8	5.7	14.3	3.5	81.8	
E 256	E1-10 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS?	43.9	18.6	.0	18.8	5.7	9.5	2.6	79.5	
E 259	E1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?	19.7	16.8	.0	6.3	5.7	4.8	2.6	70.5	
E 260	E1-12 DO YOU WORK WITH OPTICAL COUPLING?	4.5	6.2	.0	.0	2.8	.0	.0	43.2	
E 261	E1-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?	4.5	6.2	.0	.0	2.8	.0	.0	40.9	
E 262	E1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?	22.7	16.1	.0	18.8	6.6	14.3	4.4	70.5	
E 263	E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.	86.4	83.9	6.9	75.0	76.4	81.0	78.9	97.7	
E 264	E2-2 DO YOU SOLDER CONNECTIONS?	87.9	88.2	.0	81.3	84.0	81.0	86.0	97.7	
E 265	E2-3 DO YOU DESOLDER CONNECTIONS?	87.9	88.2	.0	81.3	85.8	81.0	83.3	97.7	
E 266	E2-4 DO YOU PERFORM HIGH RELIABILITY SOLDERING?	72.7	61.5	.0	75.0	58.5	71.4	46.5	86.4	
E 267	E2-5 DO YOU INSPECT SOLDERED CONNECTIONS?	87.9	87.6	.0	81.3	85.8	81.0	79.8	95.5	
E 268	E2-6 DO YOU CLEAN OR TIN CONNECTIONS?	86.4	85.7	.0	81.3	83.0	81.0	78.9	95.5	
E 269	E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?	83.3	81.4	.0	81.3	79.2	71.4	80.7	90.9	
E 270	E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?	87.9	80.7	3.4	81.3	38.7	57.1	21.1	95.5	
E 271	E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?	87.9	85.7	.0	81.3	69.8	81.0	32.5	97.7	
E 272	E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?	87.9	79.5	.0	75.0	48.1	71.4	22.8	95.5	
E 273	E2-11 DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?	81.8	47.8	.0	43.8	21.7	38.1	10.5	93.2	
E 274	E2-12 DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?	68.2	31.1	.0	31.3	78.3	57.1	77.2	36.4	
E 275	E2-13 DO YOU PERFORM CRIMPING IN LIEU OF SOLDERING?	69.7	55.3	.0	81.3	46.2	38.1	50.9	84.1	
E 276	E2-14 DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF SOLDERING?	15.2	8.7	.0	6.3	42.5	23.8	80.7	13.6	
E 277	E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.	78.8	67.7	69.0	81.3	73.6	81.0	77.2	90.9	

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D TSK TITLES

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E 276	E3-2	DO YOU ADJUST RELAYS?	306	316	316	362	362	362	918
E 279	E3-3	DO YOU CLEAN RELAYS?	51	52	50F	51	53	54	50
E 280	E3-4	DO YOU INSPECT RELAYS?	(H)	(H)	(H)	(H)	(H)	(H)	(H)
E 281	E3-5	DO YOU TROUBLESHOOT RELAYS?	306	316	316	362	362	362	918
E 282	E3-6	DO YOU MONITOR BIAS OUTPUT ON RELAYS?	51	52	50F	51	53	54	50
E 283	E3-7	DO YOU REMOVE OR REPLACE RELAYS?	(H)	(H)	(H)	(H)	(H)	(H)	(H)
E 284	E3-8	DO YOU PERFORM TASKS ON CONTACTS OF RELAYS?	306	316	316	362	362	362	918
E 285	E3-9	DO YOU PERFORM TASKS ON COILS OF RELAYS?	51	52	50F	51	53	54	50
E 286	E3-10	DO YOU PERFORM TASKS ON COILS OF RELAYS?	(H)	(H)	(H)	(H)	(H)	(H)	(H)
E 287	E3-11	DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?	306	316	316	362	362	362	918
E 288	E3-12	DO YOU PERFORM TASKS ON SPRINGS OF RELAYS?	51	52	50F	51	53	54	50
E 289	E3-13	DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?	(H)	(H)	(H)	(H)	(H)	(H)	(H)
E 290	E3-14	DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?	306	316	316	362	362	362	918
E 291	E3-15	DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?	51	52	50F	51	53	54	50
E 292	E3-16	DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?	(H)	(H)	(H)	(H)	(H)	(H)	(H)
E 293	E3-17	DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?	306	316	316	362	362	362	918
E 294	E3-18	DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?	51	52	50F	51	53	54	50

F MICROPHONES AND SENSING DEVICES (F1), SPEAKERS (F2), OSCILLOSCOPES (F3)

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D TSK TITLES

306	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
6.1	6.2	13.8	31.3	7.5	66.7	20.2	75.0
1.5	3.7	.0	12.5	7.5	61.9	14.9	68.2
.0	3.7	.0	12.5	6.6	52.4	12.3	40.9
3.0	4.3	13.8	12.5	7.5	57.1	15.8	63.6
1.5	3.7	.0	12.5	8.5	57.1	15.8	65.9
1.5	3.1	.0	6.3	4.7	23.8	4.4	38.6
1.5	3.7	.0	18.8	6.6	66.7	16.7	63.6
1.5	3.7	.0	12.5	5.7	19.0	4.4	40.9
1.5	2.5	3.4	.0	8.5	66.7	15.8	18.2
1.5	1.9	.0	.0	3.8	19.0	1.8	13.6
.0	1.9	.0	.0	2.8	4.8	.9	36.4
1.5	1.9	3.4	6.3	2.8	28.6	.9	36.4
.0	.0	.0	.0	1.9	.0	.9	6.8
.0	1.2	.0	18.8	2.8	4.8	3.5	72.7
27.3	5.0	6.9	18.8	11.3	81.0	57.9	72.7
25.8	4.3	.0	18.8	10.4	81.0	52.6	70.5
22.7	4.3	.0	12.5	7.5	66.7	38.6	40.9
21.2	3.7	6.9	12.5	9.4	76.2	51.8	59.1
25.8	4.3	.0	18.8	8.5	76.2	53.5	70.5
16.7	2.5	.0	.0	1.9	66.7	21.9	31.8
25.8	4.3	.0	18.8	8.5	81.0	52.6	68.2
13.6	3.1	.0	.0	1.9	52.4	18.4	13.6
3.0	1.9	.0	.0	1.9	9.5	2.6	15.9
.0	1.2	.0	.0	1.9	9.5	.9	9.1
.0	1.2	.0	.0	1.9	14.3	.9	15.9

F 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.

F 296 F1-2 DO YOU INSPECT MICROPHONES?

F 297 F1-3 DO YOU CLEAN MICROPHONES?

F 298 F1-4 DO YOU OPERATE MICROPHONES?

F 299 F1-5 DO YOU TROUBLESHOOT MICROPHONES WIRE CONNECTIONS?

F 300 F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

F 301 F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?

F 302 F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?

F 303 F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?

F 304 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?

F 305 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?

F 306 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?

F 307 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?

F 308 F1-14 DO YOU PERFORM TASKS ON TRANSDUCERS?

F 309 F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.

F 310 F2-2 DO YOU INSPECT SPEAKERS?

F 311 F2-3 DO YOU CLEAN SPEAKERS?

F 312 F2-4 DO YOU OPERATE SPEAKERS?

F 313 F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?

F 314 F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

F 315 F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?

F 316 F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?

F 317 F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?

F 318 F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?

F 319 F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?

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O TSK TITLES

F 339 F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?
F 340 F3-17 DO YOU USE OSCILLOSCOPES TO OBSERVE PHASE RELATIONSHIPS?
F 341 F3-18 DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?

306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 (M)
42.4	31.1	.0	25.0	12.3	9.5	.9	77.3	
69.7	37.3	.0	43.8	15.1	14.3	2.6	28.6	
37.9	21.7	.0	31.3	12.3	33.3	.9	65.9	

G SEMICONDUCTOR DIODES (G1), TRANSISTORS (G2), TRANSISTOR AMPLIFIERS (G3)

G 342 G1-1 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.

G 343 G1-2 DO YOU INSPECT DIODES?

G 344 G1-3 DO YOU CHECK DIODES?

G 345 G1-4 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES?

G 346 G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?

G 347 G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?

G 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?

G 349 G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?

G 350 G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW?

81.8	70.2	3.4	75.0	47.2	66.7	11.4	93.2
77.3	67.1	.0	75.0	39.6	66.7	9.6	93.2
77.3	68.9	.0	68.8	43.4	61.9	9.4	90.9
12.1	8.1	.0	6.3	2.8	4.8	.0	18.2
28.8	13.7	.0	12.5	9.4	19.0	.9	47.7
28.8	14.3	.0	25.0	8.5	9.5	.0	43.2
53.0	39.8	3.4	43.8	24.5	23.8	3.5	72.7
68.2	56.5	.0	43.8	34.0	47.6	8.8	88.6
18.2	9.9	.0	12.5	5.7	14.3	.0	29.5

Q TSK TITLES

306	306	316	314	362	362	362	362	918
51	52	50F	52F	51	53	54	50	(M)
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	
57.6	46.0	.0	56.3	18.9	23.8	1.8	79.5	
56.1	46.0	.0	56.3	17.9	23.8	1.8	79.5	
31.8	17.4	.0	37.5	8.5	9.5	.9	18.2	
54.6	46.0	.0	62.5	17.0	42.9	0.6	81.8	
81.8	63.4	.0	68.8	29.2	52.4	7.1	93.2	
81.8	65.2	3.4	50.0	41.5	52.4	9.6	93.2	
16.7	6.8	.0	25.0	5.7	19.0	.5	13.6	
37.7	18.6	3.4	18.8	13.2	14.3	.2	64.2	
22.7	12.4	.0	6.3	9.4	28.6	2.6	54.5	
51.5	40.4	.0	18.8	18.9	28.6	5.3	81.8	
6.1	11.8	.0	12.5	6.6	4.8	.9	40.9	
3.0	9.9	.0	12.5	5.7	4.8	.9	27.3	
6.1	11.2	.0	12.5	6.6	4.8	.9	45.5	
4.5	10.6	.0	12.5	6.6	4.8	.9	27.3	
6.1	10.6	.0	18.8	6.6	4.8	.9	45.5	

G 351 G1-10 DO YOU MEASURE FORWARD BIAS RESISTANCE?
G 352 G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?
G 353 G1-12 DO YOU READ DIODE COLOR CODING?
G 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN SIEP?
G 355 G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?
G 356 G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?
G 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?
G 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OR RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?
G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU GO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?
G 360 G1-19 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?
G 361 G1-20 DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?
G 362 G1-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?
G 363 G1-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?
G 364 G1-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?
G 365 G1-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	FCPRT6 PAGE 3 9						OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX					
		206 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	91R 50 (M)				
G 366	G1-25 DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	21.2	18.0	.0	18.8	9.4	9.5	1.8	56.8				
G 367	G1-26 DO YOU NEED AN UNDERSTANDING OF PUNCE IMPURITY IN SEMICONDUCTORS?	7.6	10.6	.0	12.5	5.7	4.8	.9	31.8				
G 368	G1-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	4.5	9.9	.0	18.8	5.7	4.8	.9	31.9				
G 369	G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	45.5	24.8	.0	31.3	11.3	23.8	3.5	72.7				
G 370	G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	47.0	24.8	.0	25.0	11.3	23.8	3.5	72.7				
G 371	G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	16.7	14.3	.0	12.5	5.7	4.8	.9	43.2				
G 372	G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	16.7	14.9	.0	12.5	5.7	4.8	.9	43.2				
G 373	G1-32 DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?	7.6	11.2	.0	18.8	6.6	4.8	.9	38.6				
G 374	G1-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	6.1	12.4	.0	12.5	7.5	4.8	.9	50.0				
G 375	G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?	9.1	13.7	.0	12.5	7.5	4.8	.9	47.7				
G 376	G1-35 DO YOU USE OR REFER TO THE 10:1 RATIO BACK TO FRONT RESISTANCE RATIO FOR GJDES?	28.8	17.4	.0	18.8	4.7	4.8	1.8	45.5				
G 377	G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS?	7.6	6.2	.0	.0	5.7	4.8	.9	20.5				
G 378	G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION?	31.8	20.5	.0	25.0	6.6	28.6	.9	81.8				
G 379	G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS?	15.2	14.3	.0	12.5	4.7	.0	.0	70.5				
G 380	G1-39 DO YOU USE OR REFER TO PEAK RECUPRENT FORWARD CURRENT DIODE RATINGS?	9.1	12.4	.0	6.3	4.7	.0	.0	52.3				

Q TASK TITLE

		FCPRTS PAGE		349			
		306	306	316	316	362	362
		51	52	50F	51	53	54
		(M)	(M)	(M)	(M)	(M)	(M)
Q 381	G1-WC DO YOU USE CP REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS?	16.7	11.8	3.4	12.5	4.7	.0
Q 382	G1-WC DO YOU USE CP REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS?	19.7	15.5	.0	18.5	4.7	4.8
Q 383	G2-1 DO YOU AGREE WITH TRANSISTORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.	84.8	80.1	6.9	75.0	30.2	71.4
Q 384	G2-2 DO YOU CHECK TRANSISTORS?	83.3	76.4	3.4	75.0	26.4	71.4
Q 385	G2-3 DO YOU CHECK TRANSISTORS?	83.3	78.9	3.4	62.5	24.5	71.4
Q 386	G2-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS?	75.8	65.2	3.4	43.8	23.6	47.6
Q 387	G2-5 DO YOU USE CP REFER TO EMITTER - BASE (CE) FORWARD AND RESISTANCE MEASUREMENTS?	74.2	66.5	3.4	62.5	19.8	47.6
Q 388	G2-6 DO YOU USE CP REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS?	74.2	67.1	3.4	62.5	20.8	47.6
Q 389	G2-7 DO YOU USE CP REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION?	51.5	32.3	3.4	31.3	11.2	28.6
Q 390	G2-8 DO YOU USE CP REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?	48.5	32.3	3.4	31.3	11.3	23.8
Q 391	G2-9 DO YOU USE CP REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?	54.5	39.1	3.4	43.8	13.2	47.6
Q 392	G2-10 DO YOU USE CP REFER TO LEAKAGE CURRENT (I _S OR CBO) IN A TRANSISTOR?	19.7	28.6	.0	18.8	5.7	14.3
Q 393	G2-11 DO YOU USE CP REFER TO TRANSISTOR SCHEMATIC SYMBOLS?	84.4	77.0	6.9	81.3	22.6	61.9
Q 394	G2-12 DO YOU USE CP REFER TO TRANSISTOR NOTATION SUCH AS G1, A2, A3, ETC.?	84.8	77.0	3.4	75.0	20.8	61.9
Q 395	G2-13 DO YOU USE CP REFER TO TRANSISTOR SUBSTITUTION INFORMATION?	59.1	44.7	.0	18.8	11.3	38.1

3.5 95.5

ELECTRONIC PRINCIPLES INVENTORY DATA ON 3-LEVELS

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O TSM TITLES

G 396 G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT $I_{B(SUB E)}$ IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT $I_{E(SUB E)}$ USUALLY $I_{B(SUB E)}$ BEING 1 TO 8 PERCENT OF $I_{E(SUB E)}$?

G 397 G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?

G 398 G2-16 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT $I_{S(CO)}$ IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?

G 399 G2-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?

G 400 G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?

G 401 G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?

G 402 G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?

G 403 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO THE BASE COLLECTOR VOLTAGE ($A_V = V_{CB}/V_{BE}$)?

G 404 G2-22 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT ($A_I = I_C/I_B$)?

G 405 G2-23 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE VOLTAGE GAIN ($A_P = A_I \times A_V$)?

G 406 G2-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF CURVE TRACING?

G 407 G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.

G 408 G3-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?

G 409 G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?

306	306	316	362	362	362	918
51	52	50F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)
36.4	34.2	.0	18.3	5.7	19.0	.9
68.2						
50.0	50.3	.0	31.3	8.5	19.0	5.3
84.1						
15.2	20.5	.0	12.5	5.7	14.3	1.8
52.3						
6.1	10.6	.0	18.8	.9	9.5	.9
43.2						
3.0	13.0	.0	6.3	.9	.0	1.8
20.5						
.0	12.4	.0	6.3	.9	.0	1.8
15.9						
.0	11.8	.0	6.3	.9	.0	1.8
13.6						
3.0	6.2	3.4	6.3	1.9	4.8	.9
22.7						
3.0	5.0	3.4	6.3	2.8	4.8	.9
18.2						
4.5	5.6	3.4	6.3	1.9	4.8	.9
22.7						
.0	1.9	.0	12.5	.9	.0	.0
22.7						
48.5	24.8	.0	31.3	16.0	38.1	8.8
84.1						
30.4	22.4	.0	31.3	11.3	47.6	6.1
84.1						
24.2	13.7	.0	25.0	12.3	42.9	7.0
65.9						

ELECTRONIC PRINCIPLES INVENTORY DATA ON G-LEVELS

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C TSK	TITLES	306 (M)	306 (M)	316 50F (M)	316 (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
G 424	G3-18 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?	10.6	5.0	.0	12.5	3.8	.0	.0	25.0
G 425	G3-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION?	10.6	10.6	.0	18.8	1.9	9.5	.0	45.5
G 426	G3-20 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION?	13.6	6.8	.0	18.8	1.9	9.5	.0	40.9
G 427	G3-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION?	16.7	9.9	.0	12.5	1.9	4.8	.0	38.6
G 428	G3-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?	24.2	11.8	.0	18.8	1.9	9.5	.9	43.2
G 429	G3-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?	24.2	12.4	.0	18.8	1.9	4.8	.9	38.6
G 430	G3-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?	6.1	7.5	.0	12.5	1.9	4.8	.0	38.6
G 431	G3-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?	13.6	11.2	.0	12.5	1.9	28.6	.0	56.8
G 432	G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?	12.1	11.2	.0	6.3	2.8	23.8	.0	50.0
G 433	G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?	9.1	6.2	.0	12.5	2.8	9.5	.0	47.7
G 434	G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?	4.5	7.5	.0	6.3	.9	.0	.0	43.2

D TSM TITLES

G 435	G3-29 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	306 (M)	306 (M)	316 SCF (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
G 436	G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	18.2	6.2	.0	6.3	3.8	14.3	.9	34.1
G 437	G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	1.5	3.7	.0	6.3	1.9	.0	.9	40.9
G 438	G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?	19.7	10.6	.0	18.8	3.8	19.0	.0	72.7
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	7.0	4.3	.0	6.3	1.9	4.8	.0	31.8
G 440	G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	7.6	1.9	.0	12.5	1.9	.0	.0	40.9
G 441	G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (DOUBLERS/TRIPLES)?	10.6	3.7	.0	12.5	1.9	.0	.0	56.8
G 442	G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?	16.7	9.3	.0	25.0	1.9	.0	.9	72.7
G 443	G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?	24.2	6.8	.0	12.5	2.8	4.8	.0	70.5
G 444	G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?	3.0	3.1	.0	.0	1.9	.0	.0	43.9
G 445	G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?	15.7	5.0	.0	18.8	6.6	38.1	1.8	61.4
G 446	G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	22.7	13.7	.0	18.8	2.8	23.8	.9	79.5
G 447	G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?	1.5	3.7	.0	.0	1.9	.0	.0	36.4
G 448	G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?	3.0	4.3	.0	.0	1.9	4.8	.0	29.5
G 449	G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?	4.5	5.6	.0	12.5	2.8	.0	.0	34.1
G 450	G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?	24.2	3.7	.0	12.5	1.9	.0	.0	79.5
G 451	G3-45 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS?	12.1	6.8	.0	18.8	1.9	.0	.0	81.8
G 452	G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS?	16.7	6.8	.0	18.8	1.9	.0	.0	79.5
		1.5	1.9	.0	.0	.9	.0	.0	45.5

O TSM TITLES

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306	316	31A	362	362	362	919
51	52	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)

H SOLID-STATE SPECIAL PURPOSE DEVICES (H1), POWER SUPPLIES (H2), OSCILLATORS (H3)

H 453 H1-1 DO YOU USE OF REFER TO VARACTORS/VAPICAP COMPONENTS?
H 454 H1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS?
H 455 H1-3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTOR COMPONENTS?

H 456 H1-4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTOR COMPONENTS?
H 457 H1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS?
H 458 H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS?
H 459 H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS?
H 460 H1-8 DO YOU USE OR REFER TO LED'S/LCD'S COMPONENTS?
H 461 H1-9 DO YOU USE OR REFER TO FAN-TAIL TRANSISTOR COMPONENTS?
H 462 H1-10 DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS?

H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS?
H 464 H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIJUNCTION TRANSISTOR (PUT) COMPONENTS?
H 465 H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS?
H 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS?

H 467 H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.
H 468 H2-2 DO YOU INSPECT POWER SUPPLIES?
H 469 H2-3 DO YOU CLEAN POWER SUPPLIES?
H 470 H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?
H 471 H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?
H 472 H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?
H 473 H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?
H 474 H2-8 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?
H 475 H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?
H 476 H2-10 DO YOU WORK WITH HALF-WAVE RECTIFIERS?
H 477 H2-11 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?

H 478 H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?
H 479 H2-13 DO YOU WORK WITH THREE-PHASE RECTIFIERS?
H 480 H2-14 DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 481 H2-15 DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?
H 482 H2-16 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 483 H2-17 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 484 H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?
H 485 H2-19 DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?

7.6	9.3	.0	18.8	3.8	.0	.9	38.6
38.8	14.9	.0	12.5	2.8	.0	.0	61.4
27.7	18.0	.0	25.0	2.8	9.5	.0	95.5
62.1	25.5	.0	31.7	4.7	4.8	.9	93.2
86.4	75.8	24.1	81.3	17.0	51.9	25.4	93.2
87.9	62.7	13.8	81.3	19.8	19.0	22.8	93.2
9.1	13.7	.0	6.3	5.7	4.8	3.5	34.1
77.7	46.6	20.7	68.8	18.9	19.0	22.8	95.5
7.6	7.5	.0	.0	2.8	.0	.0	20.5
78.8	22.4	6.9	68.8	4.7	14.3	2.6	95.5
24.2	24.2	.0	18.8	2.8	.0	.0	93.2
7.6	1.9	.0	6.3	1.9	.0	.0	86.4
10.6	3.7	.0	6.3	1.9	.0	.0	75.0
6.1	1.9	.0	.0	1.9	.0	.0	77.3
89.4	79.5	86.2	81.3	45.3	81.0	86.8	93.2
84.8	79.5	69.0	75.0	44.3	81.0	82.5	90.9
86.4	75.8	6.9	81.3	43.4	76.2	72.8	77.3
86.4	67.7	62.1	75.0	35.8	76.2	19.3	90.9
86.4	75.2	55.2	62.5	35.8	81.0	57.9	90.9
86.4	68.3	69.0	75.0	29.2	81.0	38.6	93.2
72.7	75.8	.0	62.5	28.3	71.4	83.3	90.9
86.4	68.3	3.4	75.0	25.5	76.2	30.7	93.2
6.1	4.3	6.9	12.5	9.4	19.0	3.5	40.9
72.7	50.9	3.4	56.3	20.8	19.0	7.0	93.2
71.2	57.1	3.4	62.5	26.4	33.3	4.4	88.6
81.8	57.8	10.3	75.0	18.9	47.6	12.3	93.2
30.3	18.0	3.4	50.0	18.9	9.5	2.6	68.2
81.8	68.3	37.9	81.3	34.0	66.7	27.2	93.2
43.0	29.8	24.1	25.0	13.2	33.3	10.5	72.7
65.2	50.3	13.8	43.8	25.5	38.1	18.4	81.8
64.7	52.2	17.2	50.0	30.2	23.8	26.3	70.5
72.7	28.0	.0	56.3	9.4	19.0	2.6	68.2
50.0	21.7	.0	25.0	6.6	4.8	1.8	61.4

ELECTRONIC PRINCIPLES LABORATORY DATA ON D-LEVELS

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D YSK TITLES

H 486 H2-20 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE)
VOLTAGES IN YOUR WORK WITH RECTIFIERS?
H 487 H2-21 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN
YOUR WORK WITH RECTIFIERS?
H 488 H2-22 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGES IN
YOUR WORK WITH RECTIFIERS?
H 489 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE
FILTERS?
H 490 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE
FILTERS?
H 491 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE
INPUT L-TYPE FILTERS?
H 492 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE
INPUT L-TYPE FILTERS?
H 493 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE
FILTERS?
H 494 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE
FILTERS?
H 495 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF
FILTER WITH A DIFFERENT TYPE FILTER?
H 496 H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS
OTHER THAN SOLID-STATE?
H 497 H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR
CIRCUITS?
H 498 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM H3-11; IF YES, CONTINUE.
H 499 H3-2 DO YOU INSPECT OSCILLATORS?
H 500 H3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?
H 501 H3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?
H 502 H3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?
H 503 H3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?
H 504 H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?
H 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (DEGENERATIVE OR
REGENERATIVE)?
H 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES
(FDD)?
H 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?
H 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?
H 509 H3-12 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL
OSCILLATIONS)?
H 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?
H 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK
CIRCUITS?
H 512 H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC
NETWORKS?
H 513 H3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?
H 514 H3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK
LOOPS (PLL)?

306	306	316	316	316	362	362	362	918
51	52	50F	51	53	54	54	50	
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	
25.8	18.6	.0	18.8	8.5	4.8	2.6	70.5	
53.0	44.7	.0	31.3	5.7	33.3	3.5	64.1	
56.1	42.9	13.8	50.0	21.7	33.3	13.2	79.5	
80.3	51.6	13.8	50.0	14.2	42.9	13.2	84.1	
43.9	32.9	6.9	25.0	13.2	14.3	12.3	81.8	
39.4	21.1	.0	12.5	3.8	9.5	2.6	65.9	
27.3	16.1	.0	6.3	4.7	4.8	1.8	65.9	
22.7	11.2	.0	12.5	2.8	4.8	1.8	52.3	
31.8	11.8	.0	12.5	3.8	9.5	2.6	52.3	
9.1	5.0	.0	12.5	2.8	.0	3.5	22.7	
25.8	24.2	.0	25.0	13.2	33.3	7.9	50.0	
68.2	56.5	6.9	31.3	13.2	38.1	9.6	88.6	
56.1	17.4	6.9	25.0	30.2	71.4	6.1	72.7	
45.5	16.8	3.4	6.3	17.9	66.7	2.6	75.0	
42.4	12.4	.0	12.5	18.9	57.1	2.6	72.7	
42.4	13.0	.0	12.5	16.0	61.9	.9	65.9	
25.8	12.4	.0	12.5	6.6	14.3	.9	72.7	
40.9	14.9	.0	18.8	13.2	57.1	.9	72.7	
28.8	14.2	.0	.0	7.5	9.5	.0	72.7	
27.3	8.1	3.4	6.3	6.6	14.3	.9	66.2	
27.3	8.1	.0	12.5	8.5	23.8	.0	65.9	
15.2	8.1	.0	.0	7.5	19.0	.0	50.0	
21.2	9.9	.0	6.3	10.4	23.8	.9	50.0	
16.7	8.7	3.4	.0	1.9	.0	.0	59.1	
10.6	8.7	.0	.0	4.7	4.8	.0	45.5	
21.2	8.7	.0	12.5	3.8	9.5	.0	59.1	
33.3	11.8	.0	12.5	3.8	19.0	.0	65.9	
40.9	10.6	3.4	6.3	3.8	.0	.0	65.9	
10.6	4.3	.0	.0	4.7	.0	.0	74.1	

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

FCPRYA PAGE 355

Q TSK TITLES

H 515 H3-18 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T
KNOW WHICH TYPE OF FDO?

H 516 H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL
OSCILLATORS?

H 517 H3-20 DO YOU WORK WITH CHUNT HARTLEY SINUSOIDAL
OSCILLATORS?

H 518 H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?

H 519 H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?

H 520 H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATO

H 521 H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?

H 522 H3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO)
SINUSOIDAL OSCILLATORS?

H 523 H3-26 DO YOU WORK WITH WIEB BRIDGE OSCILLATORS SINUSOIDAL
OSCILLATORS?

H 524 H3-27 DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF
SINUSOIDAL OSCILLATOR?

H 525 H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?

H 526 H3-29 DO YOU WORK WITH BLOCKING OSCILLATORS?

H 527 H3-30 DO YOU WORK WITH BURST GENERATORS?

H 528 H3-31 DO YOU WORK WITH BLOCKED OSCILLATORS?

I MULTIVIBRATORS (I1), LIMITERS AND CLAMPERS (I2), ELECTRON
TUBES (I3)

I 529 I1-1 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB?
IF NO, GO TO ITEM I2-1; IF YES, CONTINUE.

I 530 I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK
CIRCUIT FREQUENCY DETERMINING DEVICES (FDO)?

I 531 I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC
NETWORK FREQUENCY DETERMINING DEVICES (FDO)?

I 532 I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL
FREQUENCY DETERMINING DEVICES (FDO)?

I 533 I1-5 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN - DON'T
KNOW WHICH TYPE OF FDO?

I 534 I1-6 DO YOU WORK WITH ASTABLE (FPEE RUNNING)
MULTIVIBRATORS?

I 535 I1-7 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?

I 536 I1-8 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?

I 537 I1-9 DO YOU WORK WITH R-S FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?

I 538 I1-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?

I 539 I1-11 DO YOU WORK WITH "Q" FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?

I 540 I2-1 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT
JOB? IF NO, GO TO ITEM I3-1; IF YES, CONTINUE.

I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?

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D TSK	TITLES	304 (M)	306 (M)	316 SCF (M)	358 52F (M)	362 51 (M)	362 53 (M)	918 54 (M)
I 577	I3-28 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	.0	3.7	.0	12.5	1.9	.0	29.5
I 578	I3-29 DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?	1.5	5.0	.0	12.5	.9	4.8	.0
I 579	I3-30 DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?	1.5	5.0	.0	12.5	1.9	4.8	.0
I 580	I3-31 DO YOU USE OR REFER TO GAIN?	.0	3.1	.0	43.8	.9	4.8	.0
I 581	I3-32 DO YOU USE OR REFER TO EFFICIENCY?	.0	2.5	.0	6.3	.9	4.8	.0
I 582	I3-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	4.3	.0	43.8	2.8	4.8	.9
I 583	I3-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	1.5	5.0	.0	37.5	.0	4.8	.9
I 584	I3-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	.0	1.2	.0	18.8	.9	.0	.9
I 585	I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?	1.5	5.6	.0	50.0	2.8	.0	.0
I 586	I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?	3.0	8.1	.0	56.3	6.6	.0	.0
I 587	I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS?	.0	3.1	.0	18.8	3.8	.0	.0
I 588	I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?	1.5	1.9	.0	12.5	2.8	.0	.0

J ELECTRON TUBE AMPLIFIERS AND CIRCUITS (J1), SPECIAL PURPOSE ELECTRON TUBES (J2), HETERODYNING AND MODULATION - DEMODULATION (MODEMS) (J3)

J 589 J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES, CONTINUE.

J 590 J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?

J 591 J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?
J 592 J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?
J 593 J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?

J 594 J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?

J 595 J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE OF AMPLIFIER?

J 596 J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)?

J 597 J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?

J 598 J2-3 DO YOU WORK WITH BEAM POWER TUBES?

J 599 J2-4 DO YOU WORK WITH THYRATrons?

J 600 J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?

J 601 J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?

1.5	3.1	.0	6.3	3.8	.0	.9	31.8
.0	1.2	.0	.0	.9	.0	.0	15.9
.0	.6	.0	.0	.9	.0	.0	18.2
.0	1.2	.0	.0	.9	.0	.0	27.3
.0	.6	.0	.0	.9	.0	.0	20.5
.0	.6	.0	.0	.9	.0	.9	20.5
.0	1.2	.0	6.3	2.8	.0	.0	6.8
1.5	2.5	.0	25.0	3.8	.0	.9	43.2
10.6	26.1	6.9	18.8	6.6	4.8	2.6	79.5
1.5	1.2	.0	.0	1.9	.0	.0	38.6
1.5	1.9	.0	6.3	.0	.0	.0	31.8
4.5	13.7	.0	6.3	2.8	4.8	.9	50.0
6.1	10.6	.0	18.8	1.9	.0	.9	52.3

ELECTRONIC PRINCIPLES INVOLVING DATA ON α -LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

ELECTRONIC PRINCIPLES INVENTORY DATA ON E-LEVELS		FCPRT6 PAGE		359		USAFOMC (ATC) RANDOLPH	
Q TASK	TITLES	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)
J 602	J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)
J 603	J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?	6.1	13.7	3.4	6.3	1.9	4.8
J 604	J2-9 DO YOU USE OR REFER TO AQUADAG COATINGS CONCERNING CRT'S?	1.5	1.9	.0	.0	.9	.0
J 605	J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?	1.5	3.1	.0	6.7	1.9	.0
J 606	J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?	1.5	1.9	.0	.0	2.8	.0
J 607	J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?	.0	3.1	.0	.0	1.9	.0
J 608	J2-13 DO YOU USE OR REFER TO FLUORESCENCE CONCERNING CRT'S?	1.5	5.0	3.4	6.7	1.9	.0
J 609	J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?	3.0	5.6	.0	.0	1.9	.0
J 610	J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?	1.5	3.1	.0	.0	1.9	.0
J 611	J3-1 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.	72.7	36.0	10.3	.0	26.4	23.6
J 612	J3-2 DO YOU PERFORM TASKS ON FREQUENCY CONVERTER SYSTEMS STAGES?	16.7	9.3	3.4	.0	7.5	.0
J 613	J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?	17.6	3.1	3.4	.0	3.8	.0
J 614	J3-4 DO YOU PERFORM TASKS ON MODFM SYSTEMS STAGES?	68.2	14.3	3.4	.0	15.1	.0
J 615	J3-5 DO YOU USE OR REFER TO THE METEOROLGYING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?	6.1	.6	.0	.0	.9	.0
J 616	J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?	4.5	.0	3.4	.0	.9	.0
J 617	J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?	27.3	1.9	3.4	.0	2.8	4.8
K 618	AM SYSTEMS (K1); FM SYSTEMS (K2), NUMBERING SYSTEMS (K3)	4.5	2.5	3.4	.0	1.9	.0
K 619	K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.	1.5	1.9	3.4	.0	.9	.0
K 620	K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.0	.0
K 621	K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.0	.0
K 622	K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	3.4	.0	.9	.0
K 623	K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS COMPONENTS?	1.5	1.2	.0	.0	.9	.0
K 624	K1-6 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.9	.0	.0	.9	.0
K 625	K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?	1.5	1.2	.0	.0	.9	.0
K 626	K1-8 DO YOU PERFORM TASKS ON RF OSCILLATORS/SYNTHESIZERS?	1.5	.6	.0	.0	.9	.0
K 627	K1-9 DO YOU PERFORM TASKS ON RF AMPLIFIERS?	1.5	.6	.0	.0	.9	.0
K 628	K1-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	1.5	1.2	.0	.0	.9	.0
K 629	K1-11 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	1.5	.6	.0	.0	.9	.0

ELECTRONIC PARTS AND INVENTORY DATA ON S-L LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	706 (H)	306 (H)	316 (H)	300 (H)	362 (H)	362 (H)	362 (H)	54 (H)	918 (H)
K 630 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?		1.5	.6	.0	.0	.9	.0	.0	.0	6.8
K 631 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?		.0	.6	.0	.0	.0	.0	.0	.0	6.8
K 632 K1-15 DO YOU PERFORM TASKS ON DETECTORS?		1.5	.6	.0	.0	.0	.0	.0	.0	9.1
K 633 K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?		1.5	.6	.0	.0	.9	.0	.0	.0	6.8
K 634 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?		.0	1.9	.0	.0	1.9	.0	.9	.9	6.8
K 635 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?		.0	1.9	.0	.0	.9	.0	.0	.0	6.8
K 636 K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?		.0	1.2	.0	.0	.9	.0	.0	.0	6.8
K 637 K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?		1.5	1.9	.0	.0	.0	.0	.0	.0	6.8
K 638 K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.		7.6	1.2	3.4	.0	3.8	.0	1.6	1.6	6.8
K 639 K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?		1.5	.6	3.4	.0	.9	.0	.9	.9	9.1
K 640 K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?		1.5	.6	.0	.0	.9	.0	.9	.9	6.8
K 641 K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?		1.5	.6	.0	.0	.9	.0	.9	.9	9.1
K 642 K2-5 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?		1.5	.6	3.4	.0	.9	.0	1.6	1.6	9.1
K 643 K2-6 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?		1.5	.6	3.4	.0	.9	.0	.0	.0	6.8
K 644 K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?		1.5	1.2	.0	.0	.9	.0	.9	.9	9.1
K 645 K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?		3.0	.6	.0	.0	.9	.0	.0	.0	6.8
K 646 K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?		3.0	.6	.0	.0	.9	.0	.0	.0	2.3
K 647 K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?		4.5	.6	.0	.0	1.9	.0	.0	.0	11.4
K 648 K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?		4.5	.6	.0	.0	1.9	.0	.0	.0	9.1
K 649 K2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)?		1.5	.6	.0	.0	1.9	.0	.0	.0	6.8
K 650 K2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?		4.5	.6	.0	.0	1.9	.0	.0	.0	6.8
K 651 K2-14 DO YOU PERFORM TASKS ON RF AMPLIFIERS?		1.5	.6	.0	.0	1.9	.0	.0	.0	9.1
K 652 K2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?		1.5	.6	.0	.0	1.9	.0	.0	.0	6.8
K 653 K2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?		1.5	.6	.0	.0	1.9	.0	.0	.0	6.8
K 654 K2-17 DO YOU PERFORM TASKS ON LIMITERS?		1.5	.6	.0	.0	.9	.0	.0	.0	9.1
K 655 K2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?		1.5	.6	.0	.0	.9	.0	.9	.9	6.8
K 656 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?		3.0	.6	.0	.0	.9	.0	.9	.9	9.1
K 657 K2-20 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?		3.0	.6	.0	.0	1.9	.0	.9	.9	9.1
K 658 K2-21 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSCIEVERS?		1.5	.6	.0	.0	.9	.0	.0	.0	9.1
K 659 K2-22 DO YOU PLOT RECEIVE SIGNAL LEVEL CURVES (RSL)?		1.5	.6	.0	.0	.9	.0	.0	.0	2.3
K 660 K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?		31.8	6.8	44.8	50.0	4.7	.0	.9	.9	40.9
K 661 K3-2 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?		48.5	13.7	13.8	62.5	6.6	9.5	2.6	2.6	61.4
K 662 K3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?		18.7	5.6	3.4	50.0	5.7	.0	.9	.9	36.4
K 663 K3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?		32.3	6.2	51.7	50.0	2.8	4.8	.9	.9	40.9
K 664 K3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?		30.3	6.2	10.3	43.6	2.8	.0	.9	.9	43.2

D TASK TITLES

306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
12.1	5.0	.0	50.0	1.9	.0	.0	36.4
53.0	13.7	6.9	56.3	7.5	4.8	1.8	59.1
37.3	6.8	20.7	37.5	3.8	.0	.0	40.9
17.6	5.6	.0	62.5	4.7	.0	.0	38.6
15.2	5.6	3.4	62.5	3.8	.0	.0	38.6
12.1	5.0	3.4	50.0	1.9	.0	.0	36.4
17.1	5.6	.0	62.5	5.7	.0	.0	38.6
43.0	17.4	10.3	50.0	6.6	9.5	4.4	61.4
27.3	11.8	.0	25.0	2.8	.0	1.8	45.5
37.0	13.0	.0	43.8	3.8	4.8	4.4	50.0
22.7	6.8	24.1	31.3	1.9	.0	1.8	36.4
21.2	6.8	17.2	31.3	1.9	.0	1.8	36.4
12.1	5.6	.0	56.3	1.9	.0	1.8	36.4
10.6	5.6	.0	56.3	1.9	.0	.9	36.4
27.3	8.7	.0	25.0	2.8	4.8	4.4	36.4
27.3	8.1	.0	31.3	2.8	4.8	4.4	36.4
27.3	8.1	6.9	43.8	4.7	4.8	1.8	40.9
3.0	1.9	.0	6.3	1.9	.0	1.8	22.7
1.5	.6	.0	6.3	.0	.0	2.6	9.1
1.5	1.2	.0	.0	.9	.0	1.8	13.6

L LOGIC FUNCTIONS (L1), BOOLEAN EQUATIONS (L2), COUNTERS (L3)

L 685	L1-1	DO YOU PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.	86.4	34.8	37.9	43.8	2.8	14.3	1.8	77.3
L 686	L1-2	DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?	51.5	19.9	6.9	12.5	1.9	4.8	.0	75.0
L 687	L1-3	DO YOU CONSTRUCT TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?	50.0	19.3	6.9	12.5	1.9	4.8	.0	75.0
L 688	L1-4	DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?	51.5	18.0	6.9	12.5	1.9	4.8	.0	72.7
L 689	L1-5	DO YOU CONSTRUCT TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS OR GATES?	51.5	17.4	6.9	12.5	.9	.0	.0	75.0
L 690	L1-6	DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?	71.2	32.3	13.8	25.0	1.9	14.3	.0	75.0
L 691	L1-7	DO YOU USE OR REFER TO TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?	71.2	32.3	13.8	25.0	1.9	14.3	.0	75.0
L 692	L1-8	DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OF 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?	69.7	30.4	13.8	25.0	1.9	14.3	.0	72.5
L 693	L1-9	DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?	69.7	29.8	6.9	31.3	1.9	4.8	.0	75.0
L 694	L1-10	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?	83.3	35.4	37.9	43.8	1.9	14.3	.9	77.3
L 695	L1-11	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?	87.3	35.4	37.9	37.5	1.9	14.3	1.8	77.3

ELECTRONIC PRINCIPLES INVENTORY DATA CD 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFCMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	306 (H)	306 (M)	316 (H)	316 (M)	362 (H)	362 (M)	51 (H)	51 (M)	53 (H)	53 (M)	362 (H)	362 (M)	918 (H)	918 (M)
L 696	L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?	83.3	35.4	34.5	37.5	1.9	14.3	.9	77.3						
L 697	L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'EXCLUSIVE OR' GATES?	81.8	32.3	20.7	31.3	1.9	14.3	.0	77.3						
L 698	L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED 'AND' GATES?	78.8	34.2	24.1	31.3	.9	14.3	.0	75.0						
L 699	L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'B' BARS?	60.6	4.3	.0	.0	1.9	.0	.0	13.6						
L 700	L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'M' BARS?	60.6	3.1	.0	.0	.9	.0	.0	13.6						
L 701	L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?	68.2	8.7	.0	6.3	.9	.0	.0	25.0						
L 702	L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS?	75.8	29.8	3.4	31.3	.9	19.0	.0	72.7						
L 703	L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR SYMBOLS?	71.2	22.4	3.4	18.8	.9	9.5	.0	70.5						
L 704	L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS?	81.8	31.7	13.8	18.8	1.9	19.0	.9	72.7						
L 705	L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS?	71.2	21.7	10.3	18.8	.9	9.5	.0	70.5						
L 706	L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES?	63.6	29.8	.0	18.8	1.9	14.3	.0	61.4						
L 707	L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	45.5	17.4	.0	12.5	.0	.0	.0	45.5						
L 708	L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS?	48.5	17.4	.0	12.5	.9	.0	.0	45.5						
L 709	L1-25 DO YOU USE OR REFER TO NONCOMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	39.4	14.3	3.4	6.3	.9	.0	.0	43.2						
L 710	L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR 'B' BARS?	25.8	1.2	.0	6.3	.9	.0	.0	9.1						
L 711	L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR 'M' BARS?	27.3	1.2	.0	6.3	.9	.0	.0	9.1						
L 712	L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	33.3	4.3	.0	6.3	.9	.0	.0	11.4						
L 713	L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	57.6	19.9	.0	25.0	.9	4.8	.9	61.4						
L 714	L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS?	54.5	19.9	.0	12.5	.9	.0	.9	47.7						
L 715	L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	53.0	18.6	.0	12.5	.9	4.8	.9	45.5						
L 716	L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	48.5	16.1	.0	12.5	.9	.0	.0	45.5						
L 717	L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS?	47.0	16.1	.0	6.3	.9	.0	.0	45.5						
L 718	L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.	47.0	16.1	6.9	18.8	2.8	.0	1.8	40.9						
L 719	L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS?	7.6	5.0	.0	.0	.9	.0	.0	29.5						
L 720	L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	7.6	5.0	.0	6.3	.9	.0	.0	15.9						
L 721	L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS?	16.7	5.6	.0	.0	.9	.0	.0	27.3						
L 722	L2-5 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES?	37.9	14.3	.0	18.8	1.9	.0	.0	45.5						
L 723	L2-6 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS?	12.1	6.2	.0	.0	1.9	.0	.0	25.0						

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

FCP RTE PAGE 363

C YSM TITLES

	396 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	53 (M)	54 (M)	918 (M)
L 724 L2-7 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA?	15.2	5.6	.0	.0	2.8	.0	.0	.0	.0	27.3
L 725 L2-8 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES?	15.2	8.1	3.4	6.3	1.9	.0	.0	.0	.0	31.8
L 726 L2-9 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	7.6	5.6	.0	12.5	.9	.0	.0	.0	.0	20.5
L 727 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE?	36.4	16.8	6.9	18.8	.9	.0	.0	.0	.0	45.5
L 728 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAM?	15.2	5.6	.0	.0	.9	.0	.0	.0	.0	22.7
L 729 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS?	22.7	8.7	.0	.0	.9	.0	.0	.0	.0	29.5
L 730 L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	72.7	22.4	.0	25.0	4.7	9.5	.0	.0	.0	59.1
L 731 L3-2 DO YOU USE OR REFER TO UP-COUNTERS?	67.6	20.5	.0	25.0	4.7	14.3	.0	.0	.0	52.3
L 732 L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS?	59.1	17.4	.0	18.8	1.9	9.5	.0	.0	.0	50.0
L 733 L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS?	63.6	20.5	.0	6.3	1.9	9.5	.0	.0	.0	40.9
L 734 L3-5 DO YOU USE OR REFER TO PARALLEL COUNTERS?	54.5	16.1	.0	6.3	.9	9.5	.0	.0	.0	38.6
L 735 L3-6 DO YOU USE OR REFER TO RING COUNTERS?	34.8	10.6	3.4	6.3	1.9	.0	.0	.0	.0	31.8
L 736 L3-7 DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?	21.2	8.7	.0	12.5	1.9	.0	.0	.0	.0	40.9
L 737 L3-8 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?	42.4	13.7	3.4	12.5	.9	9.5	.9	.0	.0	45.5
L 738 L3-9 DO YOU USE OR REFER TO DOWN CLOCKS?	50.0	16.8	3.4	6.3	1.9	9.5	.0	.0	.0	52.3
L 739 L3-10 DO YOU USE OR REFER TO UP CLOCKS?	50.0	16.1	3.4	6.3	1.9	9.5	.0	.0	.0	54.5
L 740 L3-11 DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?	27.3	5.6	.0	6.3	.9	.0	.0	.0	.0	34.1
L 741 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS?	53.0	16.8	.0	12.5	.9	.0	.0	.0	.0	47.7
L 742 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS?	50.0	14.9	.0	12.5	.9	.0	.0	.0	.0	45.5
L 743 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS?	39.4	12.4	.0	12.5	.9	.0	.0	.0	.0	43.2
L 744 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS?	27.3	8.1	.0	6.3	.9	.0	.0	.0	.0	38.6
L 745 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS?	30.3	9.3	.0	6.3	.9	.0	.0	.0	.0	29.5
L 746 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS?	43.9	14.3	6.9	6.3	1.9	.0	.0	.0	.0	36.4
L 747 L3-18 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS?	60.6	14.9	3.4	6.3	1.9	.0	.0	.0	.0	38.6
L 748 L3-19 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?	37.9	6.2	.0	.0	1.9	4.8	.0	.0	.0	27.3
L 749 L3-20 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS?	16.7	4.3	.0	6.3	.9	.0	.0	.0	.0	31.8
L 750 L3-21 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES?	34.8	11.2	.0	6.3	.9	.0	.0	.0	.0	31.8
L 751 L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?	51.5	13.7	.0	6.3	1.9	.0	.0	.0	.0	40.9

NO TASK TITLES

FCPRT6 PAGE 364

306 306 316 362 362 362 919
51 52 52F 51 53 54 50
(M) (M) (M) (M) (M) (M) (M)

TIMING CIRCUITS (M1), USE OF SIGNAL GENERATORS (M2), MOTORS
AND GENERATORS (M3)

M 752 M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING
CIRCUITS? 42.4 12.4 .0 12.5 .0 .0 .0 75.0

M 753 M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING
CIRCUITS? 15.2 5.6 .0 6.3 .9 .0 .0 54.5

M 754 M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?
37.0 14.9 .0 12.5 1.9 4.8 .9 72.7

M 755 M1-4 DO YOU WORK WITH BLOCKING OSCILLATOR TIMING CIRCUITS?
15.2 5.6 .0 6.3 .9 .0 .0 38.6

M 756 M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?
37.0 6.2 .0 6.3 .9 9.5 .0 25.0

M 757 M1-6 DO YOU USE OR REFER TO PULSE TIME? 33.3 14.9 .0 50.0 .9 .0 .0 68.2

M 758 M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME? 21.2 14.3 .0 50.0 .9 .0 .0 56.8

M 759 M1-8 DO YOU USE OR REFER TO SWEEP TIME? 39.4 19.3 .0 43.8 3.8 .0 .0 77.3

M 760 M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH
WAVEFORMS? 16.7 11.2 .0 6.3 1.9 .0 .0 56.8

M 761 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH
WAVEFORMS? 22.7 13.0 .0 12.5 1.9 .0 .0 56.8

M 762 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH
WAVEFORMS? 16.7 7.5 .0 6.3 1.9 .0 .0 45.5

M 763 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH
WAVEFORMS? 15.2 6.8 .0 6.3 1.9 .0 .0 43.2

M 764 M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM M3-1; IF YES, CONTINUE. 28.8 59.0 .0 68.8 27.4 81.0 15.8 75.0

M 765 M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL
GENERATORS? 27.7 55.3 .0 56.3 20.8 71.4 12.3 75.0

M 766 M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING,
ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?
21.2 47.2 .0 31.3 14.2 28.6 7.9 59.1

M 767 M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY
WHILE USING SIGNAL GENERATORS? 19.7 44.7 .0 12.5 10.4 28.6 7.0 54.5

M 768 M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE
COMPONENT WHILE USING SIGNAL GENERATORS? 18.2 32.3 .0 12.5 4.7 14.3 1.8 52.3

M 769 M2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?
18.2 8.7 .0 50.0 11.3 52.4 4.4 52.3

M 770 M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH
AS SQUARE, TRIANGLE, PULSE, OR SPIKE?
12.1 5.0 .0 31.3 .9 .0 .0 47.7

M 771 M2-8 DO YOU USE GENERATORS LESS THAN 1,000 MHZ?
4.5 5.0 .0 6.3 3.8 .0 .0 40.9

M 772 M2-9 DO YOU USE GENERATORS GREATER THAN 1,000 MHZ?
4.5 1.2 .0 6.3 1.9 .0 .0 27.3

M 773 M2-10 DO YOU USE WHITE NOISE GENERATORS?
.0 .6 .0 .0 .0 .0 .0 38.6

M 774 M2-11 DO YOU USE PATTERN GENERATORS?
4.5 37.9 .0 .0 2.8 4.8 .0 36.4

M 775 M2-12 DO YOU USE PSEUDO-RANDOM GENERATORS?
.0 5.0 .0 .0 1.9 .0 .0 11.4

M 776 M2-13 DO YOU USE TIME MARK GENERATORS?
.0 15.5 .0 6.3 1.9 .0 .0 54.5

M 777 M2-14 DO YOU HAVE A SPECIAL PURPOSE OR MULTI-FUNCTION
GENERATOR? 7.6 19.3 .0 25.0 8.5 9.5 .9 50.0

M 778 M2-15 DO YOU PERFORM ANY TASKS DEALING
WITH DIRECT CURRENT MOTORS,
ALTERNATORS? IF NO, GO TO ITEM
M3-1. 72.7 77.0 51.7 25.0 19.8 19.0 10.5 88.6

DO YOU PERFORM ANY TASKS DEALING
WITH DIRECT CURRENT MOTORS,
ALTERNATORS? IF NO, GO TO ITEM
M3-1. 72.7 79.5 44.8 25.0 18.9 9.5 6.1 90.9

DO YOU PERFORM ANY TASKS DEALING
WITH DIRECT CURRENT MOTORS,
ALTERNATORS? IF NO, GO TO ITEM
M3-1. 74.2 76.4 13.8 25.0 18.9 9.5 3.5 90.9

DO YOU PERFORM ANY TASKS DEALING
WITH DIRECT CURRENT MOTORS,
ALTERNATORS? IF NO, GO TO ITEM
M3-1. 66.7 72.0 44.8 25.0 18.9 4.8 5.3 90.9

DO YOU PERFORM ANY TASKS DEALING
WITH DIRECT CURRENT MOTORS,
ALTERNATORS? IF NO, GO TO ITEM
M3-1. 74.2 77.0 .0 25.0 12.3 9.5 7.0 90.9

AD-A143 437

ELECTRONIC PRINCIPLES INVENTORY SHEPPARD TECHNICAL
TRAINING CENTER AFPT 90-EPI-485(U) AIR FORCE
OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX

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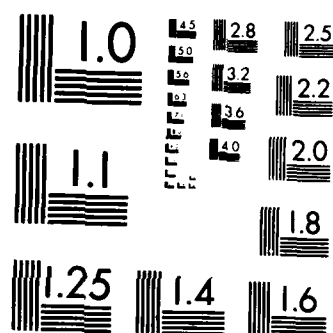
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

D TSK TITLES

	306	306	316	316	362	362	510
	51	52	50F	52F	51	53	50
	(M)	(M)	(M)	(M)	(M)	(M)	(M)
M 783 M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?	48.5	73.3	.0	6.3	11.3	.0	88.6
M 784 M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?	65.2	73.9	24.1	18.8	15.1	4.8	90.9
M 785 M3-8 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?	37.9	71.4	17.2	6.3	9.4	.0	86.4
M 786 M3-9 DO YOU PERFORM TASKS ON MOTOR FIELD COILS?	19.7	52.2	.0	6.3	2.8	.0	59.1
M 787 M3-10 DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?	28.8	66.5	3.4	.0	5.7	.0	75.0
M 788 M3-11 DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?	24.2	51.6	3.4	.0	4.7	.0	63.6
M 789 M3-12 DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?	34.8	68.9	3.4	.0	10.4	.0	86.4
M 790 M3-13 DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?	19.7	49.7	3.4	.0	5.7	.0	45.5
M 791 M3-14 DO YOU PERFORM ANY TASKS ON MOTOR COMMUTATORS?	12.1	48.4	3.4	.0	6.6	.0	52.3
M 792 M3-15 DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?	12.1	39.8	3.4	6.3	4.7	.0	34.1
M 793 M3-16 DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOR?	7.6	21.7	.0	.0	1.9	.0	18.2
M 794 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR?	13.6	26.1	.0	6.3	2.8	.0	40.9
M 795 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?	6.1	16.8	.0	.0	1.9	.0	25.0
M 796 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS?	25.8	73.9	3.4	6.3	8.5	.0	81.8
M 797 M3-20 DO YOU WORK WITH INDUCTION MOTORS?	18.2	10.6	.0	.0	7.5	.0	79.5
M 798 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS?	12.1	6.2	3.4	12.5	4.7	.0	52.3
M 799 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?	22.7	11.8	10.3	12.5	11.3	4.8	68.2
M 800 M3-23 DO YOU WORK WITH SERVOS OR SYNCHROS MOTORS?	9.1	13.0	3.4	6.3	5.7	.0	72.7
M 801 M3-24 DO YOU WORK WITH SHADED-POLE MOTORS?	4.5	1.9	.0	.0	1.9	.0	31.8
M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?	60.6	8.1	34.5	.0	6.6	.0	40.9
M 803 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?	59.1	6.8	6.9	.0	6.6	.0	40.9
M 804 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?	57.6	7.5	37.9	.0	7.5	.0	40.9
M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?	62.1	5.6	3.4	.0	3.8	.0	31.8
M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?	40.9	6.2	3.4	.0	4.7	.0	29.5
M 807 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?	50.0	5.6	20.7	.0	5.7	.0	36.4
M 808 M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	30.3	5.0	17.2	.0	3.8	.0	27.3

N METER MOVEMENTS (N1), SATURABLE REACTORS AND MAGNETIC AMPLIFIERS (N2), WAVESHAPING CIRCUITS (N3)

N 809 N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.
N 810 N1-2 DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?
N 811 N1-3 DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?
N 812 N1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?

6P.2	73.3	26.2	75.0	67.0	66.7	62.3	88.6
7.6	32.9	3.4	43.8	13.2	14.3	5.3	43.2
13.6	31.7	3.4	18.8	17.9	9.5	4.4	45.5
10.6	17.4	3.4	18.8	14.2	14.3	.9	43.2

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

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D TSK TITLES

306 306 316 316 362 362 918
51 52 50F 52F 51 54 50
(M) (M) (M) (M) (M) (M) (M)

N 813 N1-5 DO YOU READ METER SCALES?
N 814 N1-6 DO YOU EXTEND THE RANGE OF AMMETERS?
N 815 N1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?
N 816 N1-8 DO YOU ZERO OHMMETERS?
N 817 N1-9 DO YOU ZERO AMMETERS?
N 818 N1-10 DO YOU USE OR REFER TO VOLT METER SENSITIVITY
(EXPRESSED IN UNITS OF OHMS PER VOLT)?
N 819 N1-11 DO YOU CONSIDER BALLASTIC RESPONSE OF METER
MOVEMENTS?
N 820 N1-12 DO YOU CONSIDER OTHER METER MOVEMENTS?
N 821 N2-1 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1;
IF YES, CONTINUE.
N 822 N2-2 DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS?
N 823 N2-3 DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS?
N 824 N2-4 DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS?
N 825 N2-5 DO YOU TROUBLESHOOT SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS?
N 826 N2-6 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR
SATURABLE REACTORS?
N 827 N2-7 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR
SATURABLE REACTOR COMPONENTS?
N 828 N2-8 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?
N 829 N2-9 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF
SATURABLE REACTORS?
N 830 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR
WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?
N 831 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS FOR MAGNETIC AMPLIFIERS?
N 832 N2-12 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC
SYMBOLS?
N 833 N3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT
JOB? IF NO, GO TO ITEM 01-1; IF YES, CONTINUE.
N 834 N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME
AND FALL TIME)?
N 835 N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?
N 836 N3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRI)?
N 837 N3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY
(PRF)?
N 838 N3-6 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?
N 839 N3-7 DO YOU USE OR REFER TO INTEGRATING CIRCUITS?
N 840 N3-8 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME
CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT?

68.2 76.4 86.2 75.0 66.0 66.7 59.6 88.6
25.8 31.1 27.6 18.8 30.2 14.3 15.9 45.5
37.0 39.8 41.4 25.0 36.8 23.8 24.6 52.3
66.7 75.2 72.4 81.3 67.9 66.7 60.5 84.1
24.2 29.2 31.0 62.5 32.1 14.3 23.7 56.8
33.3 36.0 74.1 50.0 22.6 23.8 18.4 54.5
6.1 6.2 3.4 .0 7.5 .0 2.6 18.2
22.7 28.0 20.7 25.0 24.5 14.3 17.5 43.2
1.5 .6 .0 25.0 1.9 .0 .0 13.6
.0 .6 .0 12.5 1.9 .0 .0 9.1
.0 .6 .0 12.5 1.9 .0 .0 6.8
.0 .6 .0 6.3 1.9 .0 .0 6.8
.0 .6 .0 18.8 .9 .0 .0 9.1
.0 .6 .0 18.8 .9 .0 .0 9.1
.0 .6 .0 18.8 .0 .0 .0 6.8
.0 .6 .0 .0 .9 .0 .0 4.5
.0 1.2 .0 6.3 .9 .0 .0 6.8
1.5 .6 .0 12.5 .9 .0 .0 9.1
1.5 1.9 .0 6.3 .0 .0 .0 6.8
1.5 1.9 .0 18.8 .0 .0 .0 9.1
43.0 21.1 3.4 12.5 2.8 .0 1.8 68.2
31.8 15.5 .0 .0 1.9 .0 .0 59.1
34.8 16.8 .0 .0 2.8 .0 .0 63.6
19.7 11.8 .0 .0 2.8 .0 .0 54.5
19.2 9.3 3.4 .0 2.8 .0 .0 54.5
28.8 7.5 .0 .0 1.9 .0 .0 59.1
29.0 11.2 .0 6.3 1.9 .0 .0 63.6
17.7 9.3 .0 6.3 .0 .0 .0 40.9

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D TSK TITLES

N 841	N3-9 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION?	306 51 (H)	306 52 (M)	316 50F (M)	316 52F (H)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
N 842	N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE CIRCUITS?	15.2	5.0	.0	.0	.0	.0	.0	34.1
N 843	N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?	33.3	18.6	.0	6.3	.0	.0	.0	68.2
N 844	N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?	9.1	7.5	.0	.0	.0	.0	.0	52.3
N 845	N3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID STATE CIRCUITS?	21.2	9.9	.0	6.3	.0	.0	.0	65.9
N 846	N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE CIRCUITS?	7.6	7.5	.0	.0	.0	.0	.0	63.6
N 847	N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?	10.6	5.0	.0	.0	.0	.0	.0	69.2
N 848	N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?	28.8	12.4	.0	6.3	.9	.0	.9	61.4
N 849	N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?	21.2	10.6	.0	6.3	.9	.0	.9	61.4
N 850	N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS?	12.1	9.1	.0	.0	.0	.0	.9	61.4
N 851	N3-19 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS?	27.3	13.0	.0	6.3	.9	.0	.9	61.4
N 852	N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS?	30.3	10.6	.0	.0	.9	.0	.0	59.1
N 853	N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS?	28.8	9.9	.0	6.3	.9	.0	.9	59.1
		30.7	11.8	.0	.0	.9	.0	.9	71.4

0 SINGLE OR INDEPENDENT SIDEBAND SYSTEMS (01), PULSE MODULATION SYSTEMS (02), ANTENNAS (03)

0 854	01-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-1; IF YES, CONTINUE.	7.0	1.2	13.9	.0	1.9	4.8	.0	.0
0 855	01-2 DO YOU INSPECT SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	.6	6.9	.0	1.9	4.8	.0	.0
0 856	01-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	.0	.0	1.9	4.8	.0	.0
0 857	01-4 DO YOU ALIGN SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	3.4	.0	1.9	4.8	.0	.0
0 858	01-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.5	1.2	10.2	.0	1.9	4.8	.0	.0
0 859	01-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	1.5	1.2	3.4	.0	.0	4.8	.0	.0
0 860	01-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?	1.0	.6	7.4	.0	.9	4.8	.0	.0
0 861	01-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?	1.0	.6	.0	.0	.9	4.8	.0	.0

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

C	TSM	TITLES	306 51 (M)	306 52 (M)	316 SOF (H)	316 52F (H)	362 51 (M)	362 53 (H)	362 54 (M)	919 50 (M)
0	862	01-9 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM AUDIO AMPLIFIER STAGE?	2.0	1.2	.0	.0	.9	.0	.0	.0
0	863	01-10 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?	1.5	1.2	.0	.0	.0	.0	.0	.0
0	864	01-11 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?	1.5	1.2	.0	.0	.0	.0	.0	.0
0	865	01-12 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?	1.5	.6	.0	.0	.0	.0	.0	.0
0	866	01-13 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?	.0	.6	.0	.0	.9	.0	.0	.0
0	867	01-14 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?	.0	.6	.0	.0	.9	.0	.0	.0
0	868	01-15 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?	3.0	1.2	3.4	.0	.9	.0	.0	.0
0	869	01-16 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?	1.5	1.2	.0	.0	.9	.0	.0	.0
0	870	01-17 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?	3.0	1.2	.0	.0	.0	.0	.0	.0
0	871	01-18 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?	1.5	1.2	6.9	.0	.0	.0	.0	.0
0	872	01-19 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?	1.5	.6	3.4	.0	.0	.0	.0	.0
0	873	01-20 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?	.0	.6	3.4	.0	.9	.0	.0	.0
0	874	01-21 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?	.0	1.2	.0	.0	.0	.0	.0	.0
0	875	01-22 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?	1.5	1.2	6.9	.0	.9	.0	.0	.0
0	876	01-23 DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	1.2	3.4	.0	.0	.0	.0	.0
0	877	01-24 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	1.2	3.4	.0	.0	.0	.0	.0
0	878	01-25 DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	1.2	.0	.0	.0	.0	.0	.0
0	879	01-26 DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.6	.0	.0	.0	.0	.0	.0
0	880	01-27 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB OR ISB TRANSMITTERS?	.0	.6	.0	.0	.0	.0	.0	.0
0	881	01-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?	1.5	1.2	.0	.0	.0	.0	.0	.0
0	882	01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB RECEIVER SCHEMATIC DIAGRAMS?	1.5	.6	.0	.0	.0	.0	.0	.0
0	883	01-30 DO YOU PERFORM AERONAUTIC STATION ASSESSMENT PROGRAMS (ASAP)?	.0	.6	.0	.0	.9	.0	.0	.0
0	884	02-1 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM Q3-1; IF YES, CONTINUE.	1.5	1.9	.0	.0	2.8	.0	2.6	13.6
0	885	02-2 DO YOU INSPECT PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	1.8	13.6
0	886	02-3 DO YOU CLEAN PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	1.8	13.6
0	887	02-4 DO YOU ALIGN PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	2.8	.0	.9	13.6

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

NO	CD	TSK	TITLES	304 (M)	306 51 (M)	316 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0	088	02-5	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	.0	2.8	.0	2.6	13.6
0	089	02-6	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	.0	.9	.0	1.8	13.6
0	090	02-7	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	1.5	1.9	.0	.0	.0	2.8	.0	2.6	11.4
0	091	02-8	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	1.5	1.2	.0	.0	.0	.0	.0	1.8	13.6
0	092	02-9	DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	.0	1.9	.0	.0	15.9
0	093	02-10	DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?	3.0	.6	.0	.0	.0	1.9	.0	1.8	15.9
0	094	02-11	DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	1.5	.0	.0	.0	.0	2.8	.0	.9	11.4
0	095	02-12	DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?	4.5	.0	.0	.0	.0	.9	.0	.9	11.4
0	096	02-13	DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?	3.0	.6	.0	.0	.0	2.8	.0	1.8	11.4
0	097	02-14	DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?	4.5	.6	.0	.0	.0	.9	.0	.0	13.6
0	098	02-15	DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?	3.0	.0	.0	.0	.0	.9	.0	2.6	6.8
0	099	02-16	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?	.0	.6	.0	.0	.0	.9	.0	.0	15.9
0	000	02-17	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODE STAGE?	.0	.0	.0	.0	.0	.0	.0	.0	15.9
0	001	02-18	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	1.5	.6	.0	.0	.0	2.8	.0	.9	15.9
0	002	02-19	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMER STAGE?	1.5	.0	.0	.0	.0	.9	.0	.0	15.9
0	003	02-20	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRON STAGE?	.0	.0	.0	.0	.0	.0	.0	.0	13.6
0	004	02-21	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	1.5	.0	.0	.0	.0	.9	.0	.0	13.6
0	005	02-22	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?	.0	.6	.0	.0	.0	.9	.0	.0	11.4
0	006	02-23	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?	1.5	.6	.0	.0	.0	.0	.0	.0	13.6
0	007	02-24	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	1.5	.6	.0	.0	.0	1.9	.0	.0	15.9
0	008	02-25	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	1.5	.6	.0	.0	.0	1.9	.0	.0	13.6
0	009	02-26	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	1.5	.6	.0	.0	.0	.0	.0	.9	15.9
0	010	02-27	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?	.0	1.2	.0	.0	.0	.0	.0	.0	11.4
0	011	02-28	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIER STAGE?	.0	.6	.0	.0	.0	.9	.0	.0	6.8
0	012	02-29	DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	1.5	.6	.0	.0	.0	.9	.0	.0	13.6

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0 913	02-30	DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	306	306	316	316	362	362	362	918
			1.5	1.2	.0	.0	.9	.0	.0	13.6
0 914	02-31	DO YOU USE OR REFER TO PULSE WIDTH (PW) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	51	52	50F	52F	51	53	54	50
			1.5	1.9	.0	.0	.9	.0	.0	15.9
0 915	02-32	DO YOU USE OR REFER TO PULSE SHAPE WHEN WORKING WITH PULSE MODULATION SYSTEMS?	306	306	316	316	362	362	362	918
			1.5	1.2	.0	.0	.0	.0	.0	15.9
0 916	02-33	DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	51	52	50F	52F	51	53	54	50
			.0	1.2	.0	.0	.0	.0	.0	13.6
0 917	02-34	DO YOU USE OR REFER TO AVERAGE POWER WHEN WORKING WITH PULSE MODULATION SYSTEMS?	306	306	316	316	362	362	362	918
			.0	1.2	.0	.0	.0	.0	.0	11.4
0 918	02-35	DO YOU USE OR REFER TO DUTY CYCLE (DC) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	51	52	50F	52F	51	53	54	50
			1.5	.6	.0	.0	.0	.0	.0	11.4
0 919	02-36	DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	306	306	316	316	362	362	362	918
			1.5	.6	.0	.0	.0	.0	.0	9.1
0 920	02-37	DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)?	51	52	50F	52F	51	53	54	50
			1.5	.6	.0	.0	.0	.0	.0	11.4
0 921	02-38	DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS?	306	306	316	316	362	362	362	918
			1.5	.0	.0	.0	.0	.0	.0	6.8
0 922	02-39	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS?	51	52	50F	52F	51	53	54	50
			1.5	1.2	.0	.0	.9	.0	1.8	13.6
0 923	02-40	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS?	306	306	316	316	362	362	362	918
			1.5	.6	.0	.0	.9	.0	.9	13.6
0 924	03-1	DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB? IF NO, GO TO ITEM PI-1; IF YES, CONTINUE.	51	52	50F	52F	51	53	54	50
			1.5	5.6	20.7	.0	.9	.0	1.8	6.8
0 925	03-2	DO YOU INSPECT ANTENNAS?	306	306	316	316	362	362	362	918
			1.5	4.3	17.2	.0	.0	.0	.9	6.8
0 926	03-3	DO YOU CLEAN ANTENNAS?	51	52	50F	52F	51	53	54	50
			1.5	3.7	.0	.0	.0	.0	.0	2.3
0 927	03-4	DO YOU PHYSICALLY ALIGN ANTENNAS?	306	306	316	316	362	362	362	918
			1.5	3.1	6.9	.0	.0	.0	.0	4.5
0 928	03-5	DO YOU ELECTRICALLY ALIGN ANTENNAS?	51	52	50F	52F	51	53	54	50
			.0	2.5	3.4	.0	.0	.0	.0	2.3
0 929	03-6	DO YOU TROUBLESHOOT TO ANTENNAS?	306	306	316	316	362	362	362	918
			1.5	3.1	24.1	.0	.0	.0	.0	4.5
0 930	03-7	DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS?	51	52	50F	52F	51	53	54	50
			1.5	1.9	6.9	.0	.0	.0	.0	4.5
0 931	03-8	DO YOU REMOVE OR INSTALL ANTENNAS?	306	306	316	316	362	362	362	918
			1.5	3.1	.0	.0	.0	.0	.0	4.5
0 932	03-9	DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS?	51	52	50F	52F	51	53	54	50
			.0	1.9	.0	.0	.0	.0	.0	4.5
0 933	03-10	DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES?	306	306	316	316	362	362	362	918
			.0	2.5	.0	.0	.0	.0	.0	2.3
0 934	03-11	DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES?	51	52	50F	52F	51	53	54	50
			.0	1.9	.0	.0	.0	.0	.0	2.3
0 935	03-12	DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS?	306	306	316	316	362	362	362	918
			1.5	1.9	.0	.0	.0	.0	.0	2.3
0 936	03-13	DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS RESISTIVE LOADS TO THE GENERATOR?	51	52	50F	52F	51	53	54	50
			.0	1.2	.0	.0	.0	.0	.0	2.3
0 937	03-14	DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR?	306	306	316	316	362	362	362	918
			3.0	.6	.0	.0	1.9	.0	1.8	2.3
0 938	03-15	DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR?	51	52	50F	52F	51	53	54	50
			1.5	.6	.0	.0	.0	.0	.9	2.3
0 939	03-16	DO YOU WORK WITH HERTZ BASIC ANTENNAS?	306	306	316	316	362	362	362	918
			.0	1.2	13.8	.0	.0	.0	.0	2.3
0 940	03-17	DO YOU WORK WITH MARCONI BASIC ANTENNAS?	51	52	50F	52F	51	53	54	50
			.0	.6	3.4	.0	.0	.0	.0	.0

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306 (M)	306 (M)	316 SOF (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
0 941 03-18 DO YOU WORK WITH RHOMBIC BASIC ANTENNAS?	.0	.6	.0	.0	.0	.0	.0
0 942 03-19 DO YOU WORK WITH DIPOLE BASIC ANTENNAS?	.0	3.1	6.9	.0	.9	.0	2.3
0 943 03-20 DO YOU WORK WITH SCIMITAR BASIC ANTENNAS?	.0	.0	.0	.0	.9	.0	.0
0 944 03-21 DO YOU WORK WITH PARABOLIC BASIC ANTENNAS?	.0	3.1	.0	.0	.0	.0	.0
0 945 03-22 DO YOU WORK WITH GROUND PLANE BASIC ANTENNAS?	.0	3.7	3.4	.0	.0	.0	4.5
0 946 03-23 DO YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?	.0	2.5	6.9	.0	.0	.0	2.3
0 947 03-24 DO YOU WORK WITH BROADSIDE ARRAYS?	.0	1.2	.0	.0	.0	.0	.0
0 948 03-25 DO YOU WORK WITH END-FIRE ARRAYS?	1.5	1.2	3.4	.0	.0	.0	.0
0 949 03-26 DO YOU WORK WITH CARDIOID ARRAYS?	1.5	1.2	.0	.0	.0	.0	.0
0 950 03-27 DO YOU WORK WITH COLLINER ARRAYS?	1.5	.6	.0	.0	.0	.0	.0
0 951 03-28 DO YOU WORK WITH PHASE ARRAYS?	.0	.0	.0	.0	.0	.0	.0
0 952 03-29 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?	.0	.0	.0	.0	.0	.0	4.5
0 953 03-30 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?	.0	.6	.0	.0	.0	.0	.0
0 954 03-31 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?	.0	1.2	.0	.0	.0	.0	4.5
0 955 03-32 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?	.0	.0	.0	.0	.0	.0	.0
0 956 03-33 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?	.0	1.2	.0	.0	.0	.0	2.3
0 957 03-34 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?	.0	1.2	.0	.0	.0	.0	2.3
0 958 03-35 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?	.0	1.2	.0	.0	.0	.0	2.3
0 959 03-36 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?	.0	.6	.0	.0	.0	.0	.0
0 960 03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?	.0	.6	.0	.0	.0	.0	2.3
0 961 03-38 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?	.0	2.5	.0	.0	.0	.0	2.3
0 962 03-39 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS?	.0	1.2	.0	.0	.0	.0	.0
0 963 03-40 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS?	.0	1.2	.0	.0	.0	.0	.0
0 964 03-41 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T KNOW WHAT KIND OF ELEMENT?	.0	2.5	17.2	.0	.0	.0	2.3
0 965 03-42 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?	.0	3.7	6.9	.0	.0	.0	.0
0 966 03-43 DO YOU WORK ON BIDIRECTIONAL ANTENNAS?	.0	3.7	3.4	.0	.0	.0	.0
0 967 03-44 DO YOU WORK ON OMNIDIRECTIONAL ANTENNAS?	1.5	4.3	17.2	.0	.0	.0	4.5
0 968 03-45 DO YOU WORK WITH ROTARY ANTENNA ARRAYS?	.0	2.5	3.4	.0	.0	.0	.0

P TRANSMISSION LINES (P1), WAVEGUIDES AND CAVITY RESONATORS (P2), MICROWAVE AMPLIFIERS AND OSCILLATORS (P3)

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306 (M)	306 (M)	316 SCF (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
7.6	14.9	.0	.0	39.6	23.8	34.2	4.5
1.5	1.9	.0	.0	5.7	4.8	1.8	2.3
1.5	.6	.0	.0	6.6	.0	.9	2.3
3.0	3.1	.0	.0	4.7	.0	.0	2.3
3.0	1.2	.0	.0	8.5	.0	.0	2.3
4.5	5.0	.0	.0	10.4	.0	3.5	2.3
1.5	2.5	.0	.0	3.8	.0	1.8	2.3
3.0	10.6	.0	.0	36.8	23.8	26.3	.0
1.5	8.1	.0	.0	16.0	4.8	14.0	2.3
4.5	8.7	.0	.0	18.9	4.8	14.0	2.3
6.1	11.8	.0	.0	11.3	.0	7.9	4.5
3.0	5.6	.0	.0	5.7	.0	2.6	.0
4.5	10.6	.0	.0	35.8	19.0	33.3	4.5
3.0	8.7	.0	.0	22.6	4.8	7.0	2.3
3.0	1.9	.0	.0	5.7	.0	.0	4.5
3.0	7.5	.0	.0	15.1	19.0	8.8	4.5
.0	.6	.0	.0	1.9	.0	.0	2.3
.0	.6	.0	.0	1.9	.0	.0	2.3
.0	.6	.0	.0	1.9	.0	.0	2.3
1.5	1.9	.0	.0	14.2	14.3	2.6	2.3
.0	.0	.0	.0	1.9	.0	1.8	2.3
.0	.0	.0	.0	5.7	9.5	.8	4.5
.0	.0	.0	.0	4.7	.0	.9	2.3

P 969 P1-1 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES? (DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES.) IF NO, GO TO ITEM P2-1; IF YES, CONTINUE.

P 970 P1-2 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE COPPER LOSS OR "I SUB 2 P" LOSS IN TRANSMISSION LINES?

P 971 P1-3 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES?

P 972 P1-4 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE RADIATION LOSS?

P 973 P1-5 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE DIELECTRIC LOSS?

P 974 P1-6 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE LEAKAGE LOSSES?

P 975 P1-7 WHEN WORKING WITH TRANSMISSION LINES DO YOU REFER TO OR USE FARADAY SHIELD?

P 976 P1-8 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES?

P 977 P1-9 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES?

P 978 P1-10 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES?

P 979 P1-11 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES?

P 980 P1-12 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES?

P 981 P1-13 DO YOU TROUBLESHOOT TRANSMISSION LINES?

P 982 P1-14 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)?

P 983 P1-15 DO YOU SELECT APPROPRIATE TRANSMISSION LINE TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS?

P 984 P1-16 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS?

P 985 P1-17 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?

P 986 P1-18 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES?

P 987 P1-19 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS?

P 988 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS?

P 989 P1-21 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING?

P 990 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES?

P 991 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES?

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304	306	316	316	362	362	362	918
51	52	50F	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
P1046 P3-3 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	.0	.0	.0	.0	.0	.0	.0
P1047 P3-4 DO YOU USE OR REFER TO LEAD INDUCTANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	.0	.0	.0	.0	.0	.0	.0
P1048 P3-5 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	.0	.0	.0	.0	.0	.0	.0
P1049 P3-6 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION?	.0	.0	.0	.9	.0	1.8	2.3
P1050 P3-7 DO YOU USE OR REFER TO ELECTRON BUNCHING?	.0	.0	.0	.0	.0	.9	2.3
P1051 P3-8 DO YOU WORK WITH TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1052 P3-9 DO YOU WORK WITH THREE-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0
P1053 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS?	.0	.0	.0	.0	.0	.0	2.3
P1054 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	.0
P1055 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1056 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1057 P3-14 DO YOU WORK WITH MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0
P1058 P3-15 DO YOU WORK WITH BACKWARD WAVE OSCILLATORS (BWO)?	.0	.0	.0	.0	.0	.0	.0
P1059 P3-16 DO YOU INSPECT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	2.3
P1060 P3-17 DO YOU CLEAN KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	2.3
P1061 P3-18 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY?	.0	.0	.0	.0	.0	.0	.0
P1062 P3-19 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY?	.0	.0	.0	.0	.0	.0	.0
P1063 P3-20 DO YOU PERFORM OPERATIONAL CHECKS ON KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	2.3
P1064 P3-21 DO YOU TROUBLESHOOT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	2.3
P1065 P3-22 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRONS OR TWT'S?	.0	.0	.0	.0	.0	.0	2.3
P1066 P3-23 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS?	.0	.0	.0	.0	.0	.0	.0
P1067 P3-24 DO YOU INSPECT PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1068 P3-25 DO YOU CLEAN PARAMETRIC AMPLIFIERS?	.0	.0	.0	.9	.0	.0	.0
P1069 P3-26 DO YOU ADJUST PARAMETRIC AMPLIFIERS?	.0	.0	.0	.9	.0	.0	.0
P1070 P3-27 DO YOU TUNE PARAMETRIC AMPLIFIERS?	.0	.0	.0	.9	.0	.0	.0
P1071 P3-28 DO YOU PERFORM OPERATIONAL CHECKS ON PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1072 P3-29 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1073 P3-30 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0
P1074 P3-31 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS?	.0	.0	.0	.0	.0	.0	.0
P1075 P3-32 DO YOU INSPECT MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0
P1076 P3-33 DO YOU CLEAN MAGNETRONS?	.0	.6	.0	.0	.0	.0	.0
P1077 P3-34 DO YOU ADJUST MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0
P1078 P3-35 DO YOU TUNE MAGNETRONS?	.0	.6	.0	.0	.0	.0	.0
P1079 P3-36 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0
P1080 P3-37 DO YOU TROUBLESHOOT MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0

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O TSK	TITLES	306 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
P1081	P3-38 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1082	P3-39 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0
P1083	P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR PLATE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1084	P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1085	P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1086	P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FEEDBACK LOOP COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1087	P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ORIFT SPACE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1088	P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1089	P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF BUNCHER CAVITY COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1090	P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CONTROL GRID COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1091	P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	.0	.0	.0
P1092	P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REPELLER (REFLECTOR) PLATE COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.0	.0	.0	2.3
P1093	P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	1.9	.0	1.8	2.3
P1094	P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF GRID CAVITY GAP COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	1.9	.0	1.8	2.3
P1095	P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF RESONANT CAVITY COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.9	.0	1.8	2.3
P1096	P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNETIC COUPLING LOOP COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.9	.0	1.8	.0
P1097	P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.9	.0	1.8	2.3
P1098	P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.9	.0	1.8	2.3
P1099	P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF OUTPUT LEAD COMPONENTS OF REFLEX KLYSTRONS?	1.5	.0	.0	.0	.9	.0	1.8	2.3
P1100	P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF FILAMENT COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1101	P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF CATHODE COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1102	P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MODULATOR GRID COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1103	P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ANODE COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1104	P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF HELIX COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0
P1105	P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF COLLECTOR COMPONENTS OF TRAVELING-WAVE TUBES?	.0	.0	.0	.0	.0	.0	.0	.0

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306	306	316	316	362	362	362	918
51	52	SOF	52F	51	53	54	50
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)

D TSK TITLES

P1106 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?

P1107 P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?

P1108 P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS
OF PARAMETRIC AMPLIFIERS?

P1109 P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF
PARAMETRIC AMPLIFIERS?

P1110 P3-67 DO YOU PERFORM TASKS ON IDLER CAVITY COMPONENTS OF
PARAMETRIC AMPLIFIERS?

P1111 P3-68 DO YOU PERFORM TASKS ON VARACTOR DIODE COMPONENTS OF
PARAMETRIC AMPLIFIERS?

P1112 P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS
OF PARAMETRIC AMPLIFIERS?

P1113 P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY
COMPONENTS OF PARAMETRIC AMPLIFIERS?

P1114 P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF
MAGNETRONS?

P1115 P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS
OF MAGNETRONS?

P1116 P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF
MAGNETRONS?

P1117 P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF
MAGNETRONS?

P1118 P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF
MAGNETRONS?

P1119 P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF
MAGNETRONS?

P1120 P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF
MAGNETRONS?

Q REGISTERS (Q1), STORAGE DEVICES (Q2), DIGITAL-TO-ANALOG AND
DIGITAL-TO-DIGITAL CONVERTERS (Q3)

Q1121 Q1-1 DO YOU USE OR REFER TO STORAGE REGISTERS?

Q1122 Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?

Q1123 Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT
REGISTERS?

Q1124 Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE
REGISTERS?

Q1125 Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF
SHIFT REGISTER CIRCUITS?

Q1126 Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF
OTHER TYPES OF REGISTER CIRCUITS?

Q1127 Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A
SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES
HAVE PASSED?

69.7	31.1	13.8	18.8	1.8
77.3	34.8	1.0	19.8	1.8
72.7	33.5	3.4	18.8	1.4
66.7	30.4	3.4	18.8	1.4
77.3	32.9	1.0	18.8	1.4
63.6	27.3	3.4	18.8	1.4
72.7	27.3	1.0	12.5	1.9

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D TASK

TITLES

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51 52 50F 51 54 54 54
(M) (M) (M) (M) (M) (M) (M)

Q1128 Q2-1 DO YOU WORK WITH STORAGE DEVICES IN YOUR PRESENT JOB?
IF NO, GO TO ITEM Q3-1; IF YES, CONTINUE.

Q1129 Q2-2 DO YOU USE OR REFER TO DELAY LINES?

Q1130 Q2-3 DO YOU USE OR REFER TO MAGNETIC CORES OR RIMAGS?

Q1131 Q2-4 DO YOU USE OR REFER TO MAGNETIC DRUMS?

Q1132 Q2-5 DO YOU USE OR REFER TO MAGNETIC TAPES?

Q1133 Q2-6 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OF MEMORY SYSTEMS?

Q1134 Q2-7 DO YOU USE OR REFER TO STORAGE CAPACITY OF MEMORY SYSTEMS?

Q1135 Q2-8 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS?

Q1136 Q2-9 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES?

Q1137 Q2-10 DO YOU USE OR REFER TO MAGNETIC DISKS?

Q1138 Q2-11 DO YOU USE OR REFER TO THIN FILMS?

Q1139 Q2-12 DO YOU USE OR REFER TO SEMICONDUCTOR MEMORY (INTEGRATED) CIRCUITS?

Q1140 Q2-13 DO YOU USE OR REFER TO BUBBLE MEMORIES?

Q1141 Q2-14 DO YOU USE OR REFER TO PUNCH CARDS?

Q1142 Q2-15 DO YOU USE OR REFER TO PAPER TAPES?

Q1143 Q2-16 DO YOU USE OR REFER TO RANDOM ACCESS MEMORIES (RAM)?

Q1144 Q2-17 DO YOU USE OR REFER TO READ ONLY MEMORIES (ROM)?

Q1145 Q2-18 DO YOU USE OR REFER TO PROGRAMMABLE READ ONLY MEMORIES (PROM)?

Q1146 Q2-19 DO YOU USE OR REFER TO TRANSFORMER READ ONLY STORAGE (TROS)?

Q1147 Q2-20 DO YOU USE OR REFER TO CAPACITY READ ONLY STORAGE (CROS)?

Q1148 Q2-21 DO YOU INSPECT STORAGE DEVICES?

Q1149 Q2-22 DO YOU CLEAN STORAGE DEVICES?

Q1150 Q2-23 DO YOU ALIGN STORAGE DEVICES?

Q1151 Q2-24 DO YOU ADJUST STORAGE DEVICES?

Q1152 Q2-25 DO YOU TROUBLESHOOT MEMORY SYSTEM STORAGE DEVICES?

Q1153 Q2-26 DO YOU REMOVE OR REPLACE SUBASSEMBLIES OR COMPONENTS OF STORAGE DEVICES?

Q1154 Q2-27 DO YOU TRACE SIGNAL FLOW IN STORAGE DEVICES USING LOGIC DIAGRAMS OR SCHMATICS?

Q1155 Q3-1 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS OR ANALOG-TO-DIGITAL (A/D) CONVERTERS?

IF NO, GO TO ITEM R1-1; IF YES, CONTINUE.

Q1156 Q3-2 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES?

Q1157 Q3-3 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS?

Q1158 Q3-4 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS?

Q1159 Q3-5 DO YOU PERFORM TASKS ON SAMPLE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?

71.2 26.7 31.0 25.0 10.4 .0 .9 36.4
10.6 4.3 .0 .0 .9 .0 13.6
54.5 5.0 3.4 .0 1.9 .0 11.4
6.1 3.7 3.4 .0 2.8 .0 11.4
6.1 15.5 3.4 .0 9.4 .0 25.0
47.0 8.7 3.4 6.3 2.8 .0 27.3
59.1 13.0 13.8 6.3 4.7 .0 25.0
28.8 8.1 3.4 6.3 2.8 .0 25.0
16.7 3.1 .0 .0 1.9 .0 13.6
6.1 3.7 .0 18.8 1.9 .0 20.5
3.0 3.1 .0 6.3 .9 .0 18.2
25.8 16.1 6.9 .0 3.8 .0 38.6
0 2.5 3.4 6.3 1.9 .0 11.4
59.1 5.6 3.4 .0 .9 .0 20.5
62.1 19.9 31.0 18.8 2.8 .0 11
45.5 18.0 17.2 6.3 5.7 .0 36.4
13.6 18.6 10.3 6.3 4.7 .0 34.1
7.6 10.6 3.4 12.5 2.8 .0 36.4
0 3.1 .0 .0 .9 .0 9.1
0 2.5 .0 .0 .9 .0 6.8
56.1 22.4 13.8 18.2 8.5 .0 34.1
59.1 21.7 .0 12.5 9.4 .0 25.0
21.2 16.1 .0 6.3 3.8 .0 20.5
21.2 17.4 .0 12.5 3.8 .0 22.7
48.5 19.3 20.7 6.3 5.7 .0 31.8
51.5 22.4 3.4 12.5 7.5 .0 38.6
51.5 18.6 3.4 .0 1.9 .0 29.5
45.5 7.5 .0 12.5 4.7 .0 50.0
16.7 1.9 .0 .0 .9 .0 31.8
9.1 1.2 .0 .0 .9 .0 22.7
15.2 1.9 .0 .0 1.9 .0 29.5
7.6 1.9 .0 .0 1.9 .0 38.6

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306 51 (M)	306 52 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
4.5	1.9	.0	.0	1.9	.0	.0	36.4
0.1	1.9	.0	.0	1.9	.0	.0	34.1
3.0	1.9	.0	.0	1.9	.0	.0	36.4
16.7	2.5	.0	6.3	.9	.0	.0	9.1
9.1	1.9	.0	.0	.9	.0	.0	36.4
4.5	1.9	.0	.0	.9	.0	.0	38.6
10.6	1.9	.0	.0	.9	.0	.0	34.1
13.6	1.9	.0	.0	.9	.0	.0	38.6
4.5	1.9	.0	.0	1.9	.0	.0	27.3
24.2	3.7	.0	.0	2.8	.0	.0	47.7
24.2	4.3	.0	.0	2.8	.0	.0	45.5
15.2	1.9	.0	12.5	3.8	.0	.0	29.5
19.7	3.7	.0	12.5	3.8	.0	.0	18.2
24.2	3.1	.0	6.3	2.8	.0	.0	18.2
24.2	3.1	.0	6.3	1.9	.0	1.8	34.1
25.8	3.1	.0	.0	.9	.0	.0	9.1
.0	.6	.0	.0	.9	.0	.0	.0
7.6	2.5	.0	.0	.9	.0	.0	2.3
4.5	.6	.0	.0	1.9	.0	.0	4.5
1.5	.6	.0	.0	1.9	.0	.0	4.5
7.6	2.5	.0	.0	1.9	.0	.0	4.5

R PHANTASTRONS (R1), SCHMITT TRIGGERS (R2), CABLE FABRICATION (P3)

R1177 R1-1 DO YOU WORK WITH PHANTASTRON CIRCUITRY? IF NO, GO TO ITEM R2-1. IF YES, CONTINUE.
R1178 R1-2 PHANTASTRON CIRCUITRY HAS VARIABLE-DELAY APPLICATIONS IN MY JOB.
R1179 R1-3 PHANTASTRON CIRCUITRY HAS SEARCH-LOCK AUTOMATIC FREQUENCY CONTROLS (AFC) APPLICATIONS IN MY JOB.
R1180 R1-4 PHANTASTRON CIRCUITRY HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.

O TSK TITLES

R1181 R1-5 PHANTASTRON CIRCUITRY HAS BISTABLE MULTIVIBRATORS
APPLICATIONS IN MY JCB.
R1182 R1-6 PHANTASTRON CIRCUITRY HAS FREE-RUNNING MULTIVIBRATORS
APPLICATIONS IN MY JCB.
R1183 R2-1 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER
CIRCUITS? IF NO, GO TO ITEM R3-1; IF YES, CONTINUE.
R1184 R2-2 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER
SCHEMATIC DIAGRAMS?
R1185 R2-3 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS?
R1166 R3-1 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR
CABLES?
R1167 R3-2 DO YOU FABRICATE COAXIAL CABLES?

S INPUT/OUTPUT (PERIPHERAL) DEVICES (S1), PHOTO SENSITIVE
DEVICES (S2), SYNCHRONOUS VIBRATIONS (CHOPPER
CIRCUITS) (S3)

S1188 S1-1 DO YOU WORK WITH INPUT OR OUTPUT DEVICES ON YOUR
PRESENT JOB? IF NO, GO TO ITEM S2-1; IF YES, CONTINUE.
S1189 S1-2 DO YOU USE OR REFER TO KEYBOARDS OR TELETYPEWRITERS?
S1190 S1-3 DO YOU USE OR REFER TO PRINTERS?
S1191 S1-4 DO YOU USE OR REFER TO TAPE DRIVES (UNITS)?
S1192 S1-5 DO YOU USE OR REFER TO CARD READERS/CARD PUNCHES?
S1193 S1-6 DO YOU USE OR REFER TO VIDEO DISPLAYS (CRT'S)?
S1194 S1-7 DO YOU USE OR REFER TO MIXIE LIGHTS (TUBES)?
S1195 S1-8 DO YOU USE OR REFER TO LED'S?
S1196 S1-9 DO YOU USE OR REFER TO LCD'S?
S1197 S1-10 DO YOU USE OR REFER TO INCANDESCENT DISPLAYS?
S1198 S1-11 DO YOU USE OR REFER TO TOGGLE OR PUSH BUTTON SWITCH
INPUTS?
S1199 S1-12 DO YOU USE OR REFER TO INTERFACE ADAPTER UNITS?
S1200 S1-13 DO YOU USE OR REFER TO TAPE READERS?
S1201 S1-14 DO YOU USE OR REFER TO TAPE PUNCHES?
S1202 S2-1 DO YOU WORK WITH PHOTODIODE PHOTO SENSITIVE DEVICES?
S1203 S2-2 DO YOU WORK WITH PHOTOTRANSISTOR PHOTO SENSITIVE
DEVICES?
S1204 S2-3 DO YOU WORK WITH PHOTOTUBE PHOTO SENSITIVE DEVICES?
S1205 S2-4 DO YOU WORK WITH PHOTO-SCR PHOTO SENSITIVE DEVICES?
S1206 S2-5 DO YOU WORK WITH PHOTOCCELL (PHOTOCONDUCTIVE OR
PHOTOVOLTAIC) PHOTO SENSITIVE DEVICES?
S1207 S3-1 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS?
IF NO, GO TO ITEM T1-1; IF YES, CONTINUE.
S1208 S3-2 DO YOU USE OR REFER TO EXCITATION FREQUENCY CHOPPER
COIL ITEMS?
S1209 S3-3 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE
RELATIONSHIP CHOPPER COIL ITEMS?

306 (M)	306 (M)	316 (M)	316 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918 (M)
7.6	2.5	.0	.0	.0	.0	.0	.0	.0	.0	4.5
6.1	1.9	.0	.0	.0	.0	.0	.0	.0	.0	4.5
63.6	42.2	.0	18.8	3.8	4.8	.0	.0	.0	.0	43.2
62.1	39.8	.0	12.5	3.8	4.8	.0	.0	.0	.0	40.9
62.1	35.4	.0	12.5	3.8	4.8	.0	.0	.0	.0	40.9
6.1	21.1	.0	56.3	21.7	4.8	37.7	34.1			
7.6	18.6	.0	37.5	11.3	.0	5.3	40.9			
80.3	76.4	51.7	43.8	23.6	14.3	7.9	47.7			
68.2	78.9	6.9	43.8	19.8	4.8	1.8	31.8			
77.3	78.3	13.8	37.5	17.9	4.8	1.8	45.5			
37.9	44.7	24.1	31.3	13.2	.0	.0	25.0			
74.2	13.0	6.9	.0	4.7	.0	1.8	18.2			
7.6	33.5	.0	31.3	18.9	4.8	.9	45.5			
6.1	18.6	.0	6.3	.9	.0	.0	27.3			
60.6	44.1	31.0	31.3	12.3	4.8	2.6	50.0			
18.2	19.9	10.3	31.3	5.7	.0	.0	43.2			
22.7	11.8	13.8	18.8	3.8	4.8	.9	29.5			
69.7	44.1	37.9	31.3	9.4	9.5	5.3	38.6			
39.4	30.4	10.3	37.5	6.6	4.8	1.8	29.5			
83.3	65.2	48.3	37.5	3.8	.0	.0	18.2			
77.3	66.5	51.7	31.3	3.8	.0	.0	9.1			
60.6	13.0	.0	.0	1.9	.0	.0	79.5			
36.4	10.6	.0	.0	1.9	.0	.0	54.5			
6.1	2.5	.0	.0	1.9	.0	.0	70.5			
7.6	3.1	.0	.0	1.9	.0	.0	22.7			
68.2	16.8	3.4	.0	1.9	.0	.0	79.5			
3.0	.6	3.4	.0	.9	.0	1.8	34.1			
.0	.6	3.4	.0	1.9	.0	.0	20.5			
.0	.6	3.4	.0	1.9	.0	.0	22.7			

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ELECTRONIC PRINCIPLES INVENTORY DATA OF S-LEVELS									
D TSK	TITLES	FCPRT6 PAGE				USAFOMC (ATC) RANDOLPH			
		306 (M)	316 (M)	321 (M)	326 (M)	362 (M)	51 (M)	54 (M)	918 (M)
S1210	S3-4 DO YOU MEASURE EXCITATION FREQUENCY CHOPPER COIL ITEMS?	.0	.0	.0	.0	.0	.0	.0	18.2
S1211	S3-5 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIP CHOPPER COIL ITEMS?	.0	.0	.0	.0	.0	.0	.0	20.5
S1212	S3-6 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	.0	.0	.0	.0	.0	22.7
S1213	S3-7 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	3.4	.0	.0	.0	.0	22.7
S1214	S3-8 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.0	.0	.0	.0	.0	.0	25.0
S1215	S3-9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION?	.0	.6	3.4	.0	.0	.0	.0	27.3

INFRARED (T1), LASERS (T2), DISPLAY TUBES (T3),
TELEVISION (T4)

TI-1216	TI-1	DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS? IF NO, GO TO ITEM T2-1; IF YES, CONTINUE.	.0	.6	.0	43.8	.9	.0	.9	9.1
TI-1217	TI-2	DO YOU INSPECT INFRARED SYSTEMS?	.0	.0	.0	43.8	.0	.0	.0	9.1
TI-1218	TI-3	DO YOU CLEAN INFRARED SYSTEMS?	.0	.0	.0	43.8	.9	.0	.0	9.1
TI-1219	TI-4	DO YOU SERVICE INFRARED SYSTEMS?	.0	.6	.0	43.8	.9	.0	.0	9.1
TI-1220	TI-5	DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS?	.0	.6	.0	43.8	.0	.0	.0	9.1
TI-1221	TI-6	DO YOU OPERATE INFRARED SYSTEMS?	.0	.6	.0	43.8	.0	.0	.0	6.8
TI-1222	TI-7	DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS?	.0	.6	.0	43.8	.0	.0	.0	9.1
TI-1223	TI-8	DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	.0	.6	.0	43.8	.0	.0	.0	9.1
TI-1224	TI-9	DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS?	.0	.6	.0	43.6	.0	.0	.0	9.1
TI-1225	TI-10	DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS?	1.5	.6	.0	43.8	.0	.0	.0	9.1
TI-1226	TI-11	DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS?	.0	.6	.0	43.8	.0	.0	.0	9.1
TI-1227	TI-12	DO YOU USE OR REFER TO FAR REGIONS?	.0	.0	.0	.0	.9	.0	.0	2.3
TI-1228	TI-13	DO YOU USE OR REFER TO INTERMEDIATE REGIONS?	1.5	.0	.0	.0	.9	.0	.0	2.3
TI-1229	TI-14	DO YOU USE OR REFER TO NEAR REGIONS?	1.5	.0	.0	.0	.9	.0	.0	2.3
TI-1230	TI-15	DO YOU USE OR REFER TO MICROPS (M)?	1.5	.0	.0	6.3	.0	.0	.0	2.3
TI-1231	TI-16	DO YOU USE OR REFER TO GRAY BODIES?	1.5	.0	.0	.0	.0	.0	.0	2.3
TI-1232	TI-17	DO YOU USE OR REFER TO BLACK BODIES?	1.5	.0	.0	.0	.0	.0	.0	2.3
TI-1233	TI-18	DO YOU USE OR REFER TO ABSORPTION?	1.5	.0	.0	12.5	.0	.0	.0	6.8
TI-1234	TI-19	DO YOU USE OR REFER TO SCATTERING?	1.5	.0	.0	.0	.0	.0	.0	6.8
TI-1235	TI-20	DO YOU USE OR REFER TO ABSOLUTE ZERO?	1.5	.0	.0	12.5	.0	.0	.0	4.5
TI-1236	TI-21	DO YOU PERFORM TASKS ON BLITZ?	.0	.0	.0	.0	.9	.0	.0	.0
TI-1237	TI-22	DO YOU PERFORM TASKS ON TARGET BUTTONS?	.0	.0	3.4	.0	.9	.0	.0	.0
TI-1238	TI-23	DO YOU PERFORM TASKS ON ERECTOR LENSES?	.0	.0	.0	.0	.9	.0	.0	.0
TI-1239	TI-24	DO YOU PERFORM TASKS ON OCULAR LENSES?	.0	.0	.0	.0	.9	.0	.0	6.8

D TSK	TITLES	306 (P)	306 (M)	52 (M)	316 (M)	316 (M)	362 (M)	362 (M)	51 (M)	362 (M)	53 (M)	54 (M)	918 (M)
T1240	T1-25 DO YOU PERFORM TASKS ON CORRECTION LENSES?	.0	.0	.0	.0	6.3	.9	.0	.0	.0	.0	.0	2.3
T1241	T1-26 DO YOU PERFORM TASKS ON FILTERS?	.0	.0	.0	.0	18.8	.9	.0	.0	.0	.0	.0	6.8
T1242	T1-27 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS?	.0	.0	.0	.0	6.3	.9	.0	.0	.0	.0	.0	2.3
T1243	T1-28 DO YOU PERFORM TASKS ON PLANE MIRRORS?	.0	.0	.0	.0	6.3	.9	.0	.0	.0	.0	.0	4.5
T1244	T2-1 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS? IF NO, GO TO ITEM T3-1; IF YES, CONTINUE.	4.5	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.9	11.4
T1245	T2-2 DO YOU INSPECT LASER SYSTEMS?	3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	11.4
T1246	T2-3 DO YOU CLEAN LASER SYSTEMS?	3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	6.9
T1247	T2-4 DO YOU SERVICE LASER SYSTEMS?	3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1248	T2-5 DO YOU OPERATE LASER SYSTEMS?	3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	6.8
T1249	T2-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS?	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8
T1250	T2-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS?	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3
T1251	T2-8 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS?	1.5	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1252	T2-9 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS?	3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1253	T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS?	1.5	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1254	T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9	4.5
T1255	T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.9	4.5
T1256	T2-13 DO YOU USE OR REFER TO GROUND STATE?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.9	4.5
T1257	T2-14 DO YOU USE OR REFER TO EXCITED STATE?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.9	4.5
T1258	T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.9	4.5
T1259	T2-16 DO YOU USE OR REFER TO PHOTONS?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9	4.5
T1260	T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSIONS?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9	4.5
T1261	T2-18 DO YOU USE OR REFER TO STIMULATED EMISSIONS?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1262	T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1263	T2-20 DO YOU USE OR REFER TO INVERSION LEVELS?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1264	T2-21 DO YOU USE OR REFER TO MONOCHROMATIC?	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.5
T1265	T2-22 DO YOU WORK WITH ACTIVE MATERIALS?	.0	.6	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1266	T2-23 DO YOU WORK WITH PUMPING SOURCES?	.0	.6	.0	.0	.0	1.9	.0	.0	.0	.0	.0	4.5
T1267	T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS?	1.5	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	4.5
T1268	T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS?	1.5	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	4.5
T1269	T2-26 DO YOU WORK WITH HELICAL FLASHTUBES?	1.5	.6	.0	.0	.0	1.9	.0	.0	.0	.0	.0	4.5
T1270	T2-27 DO YOU WORK WITH RUBY MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1271	T2-28 DO YOU WORK WITH HELIUM-NEON MATERIALS?	1.5	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1272	T2-29 DO YOU WORK WITH HELIUM-XENON MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1273	T2-30 DO YOU WORK WITH XENON MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	4.5
T1274	T2-31 DO YOU WORK WITH CESIUM-HELIUM MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0
T1275	T2-32 DO YOU WORK WITH ARGON MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1276	T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0
T1277	T2-34 DO YOU WORK WITH GALLIUM ARSENIDE MATERIALS?	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	2.3
T1278	T3-1 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE TUBES (DVST), MULTIPLE MODE STORAGE TUBES (MMST), OR SCAN CONVERTER TUBES (SCT)? IF NO, GO TO ITEM T4-1; IF YES, CONTINUE.	3.0	1.9	.0	.0	.0	2.8	.0	.0	.0	.0	.9	6.8
T1279	T3-2 DO YOU INSPECT DVST OR MMST?	1.5	1.2	.0	.0	.0	.9	.0	.0	.0	.0	.0	6.8

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

D TSK	TITLES	FCPRT6 PAGE 383				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX			
		306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 50 (M)
T1280	T3-3 DO YOU CLEAN OVST OR MMST?	1.5	1.2	.0	.0	.9	.0	.0	6.8
T1281	T3-4 DO YOU ADJUST OR CALIBRATE OVST OR MMST?	1.5	.6	.0	.0	.0	.0	.0	4.5
T1282	T3-5 DO YOU OPERATE SYSTEMS THAT CONTAIN OVST OR MMST?	1.5	.0	.0	.0	.0	.0	.0	4.5
T1283	T3-6 DO YOU TROUBLESHOOT OVST OR MMST CIRCUITS?	1.5	1.2	.0	.0	.0	.0	.0	4.5
T1284	T3-7 DO YOU REMOVE OR REPLACE OVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS?	1.5	.0	.0	.0	.0	.0	.0	4.5
T1285	T3-8 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF OVST?	.0	.0	.0	.0	.0	.0	.9	.0
T1286	T3-9 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF MMST?	.0	.0	.0	.0	.0	.0	.9	.0
T1287	T3-10 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME VARIOUS ELEMENTS OF SCT?	.0	.0	.0	.0	.0	.0	.9	2.3
T1288	T3-11 DO YOU PERFORM TASKS ON FLOOD GUNS?	.0	.0	.0	.0	.9	.0	.0	.0
T1289	T3-12 DO YOU PERFORM TASKS ON WRITE GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1290	T3-13 DO YOU PERFORM TASKS ON READ GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1291	T3-14 DO YOU PERFORM TASKS ON ATTACK GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1292	T3-15 DO YOU PERFORM TASKS ON ERASE GUNS?	.0	.0	.0	.0	1.9	.0	.0	.0
T1293	T3-16 DO YOU PERFORM TASKS ON STORAGE GRIDS?	.0	.6	.0	.0	1.9	.0	.0	2.3
T1294	T4-1 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING WITH TELEVISION SYSTEMS INCLUDING LOW LIGHT TELEVISION?	.0	1.2	17.2	6.3	.9	.0	.0	38.6
IF NO, GO TO ITEM U1-1; IF YES, CONTINUE.									
T1295	T4-2 DO YOU INSPECT TELEVISION SYSTEMS?	.0	1.2	10.3	.0	.9	.0	.0	40.9
T1296	T4-3 DO YOU CLEAN TELEVISION SYSTEMS?	.0	1.2	3.4	.0	.9	.0	.0	38.6
T1297	T4-4 DO YOU ADJUST OR CALIBRATE TELEVISION SYSTEMS?	.0	1.2	10.3	.0	.9	.0	.0	38.6
T1298	T4-5 DO YOU OPERATE TELEVISION SYSTEMS?	.0	1.2	17.2	6.3	.9	.0	.0	38.6
T1299	T4-6 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF TV SYSTEMS?	.0	1.2	6.9	.0	.9	.0	.0	40.9
T1300	T4-7 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF TV SYSTEMS?	.0	1.2	6.9	.0	.9	.0	.0	31.8
T1301	T4-8 DO YOU TROUBLESHOOT DOWN TO TV SYSTEM COMPONENT PARTS?	.0	1.2	3.4	.0	.9	.0	.0	29.5
T1302	T4-9 DO YOU REMOVE OR REPLACE TV SYSTEM MAJOR ASSEMBLIES?	.0	.6	.0	.0	.9	.0	.0	31.8
T1303	T4-10 DO YOU REMOVE OR REPLACE TV SYSTEM COMPONENT PARTS?	.0	.6	.0	.0	.9	.0	.0	29.5
----- U COMPUTERS, MICROPROCESSORS, AND PROGRAMMING (U1), DB AND POWER RATIOS (U2) -----									
U1304	U1-1 IN YOUR PRESENT JOB, DO YOU PERFORM MAINTENANCE ROUTINES OR PROGRAMMING TASKS? IF NO, GO TO ITEM U2-1; IF YES, CONTINUE.	34.8	5.6	20.7	31.3	9.4	.0	2.6	29.5
U1305	U1-2 DO YOU USE OR REFER TO DECIMAL SYSTEMS?	21.2	1.9	10.3	6.3	4.7	.0	.0	25.0
U1306	U1-3 DO YOU USE OR REFER TO OCTAL SYSTEMS?	18.2	.0	17.2	.0	3.8	.0	.0	22.7
U1307	U1-4 DO YOU USE OR REFER TO PARITY DETECTORS/GENERATORS?	28.8	4.3	3.4	.0	3.8	.0	.0	15.9
U1308	U1-5 DO YOU USE OR REFER TO HEXADECIMAL SYSTEMS?	13.6	1.2	.0	25.0	3.8	.0	.0	25.0
U1309	U1-6 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS?	9.1	.6	6.9	.0	2.8	.0	.0	13.6
U1310	U1-7 DO YOU USE OR REFER TO FOUR SYSTEMS?	6.1	.0	.0	.0	.9	.0	.0	11.4
U1311	U1-8 DO YOU USE OR REFER TO BINARY SYSTEMS?	34.8	3.7	13.8	12.5	5.7	.0	.0	27.3
U1312	U1-9 DO YOU USE OR REFER TO TIME-SHARING (MULTI-SEQUENCING)?	9.1	1.2	.0	.0	2.8	.0	.9	15.9
U1313	U1-10 DO YOU USE OR REFER TO DATA WOFUS?	22.7	4.3	6.9	12.5	5.7	.0	.0	15.9

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX

C TSM	TITLES	FCPRT6 PAGE 384				OCCUPATIONAL ANALYSIS PROGRAM USAFOMC (ATC) RANDOLPH AFB TX			
		306 (M)	306 (M)	316 52F (M)	316 52F (M)	362 51 (M)	362 51 (M)	362 54 (M)	918 50 (M)
U1314	U1-11 DO YOU USE OR REFER TO ADDRESS WORDS?	16.7	4.3	3.4	12.5	7.5	.0	.0	15.9
U1315	U1-12 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS?	19.7	3.1	3.4	12.5	6.6	.0	.9	13.6
U1316	U1-13 DO YOU USE OR REFER TO ADDRESS/INFORMATION?	12.1	2.5	6.9	6.3	2.8	.0	.0	11.4
U1317	U1-14 DO YOU USE OR REFER TO INSTRUCTION WORDS?	10.6	3.1	6.9	6.3	6.6	.0	.0	15.9
U1318	U1-15 DO YOU USE OR REFER TO DAP-16?	.0	.0	.0	.0	.0	.0	.0	6.9
U1319	U1-16 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	16.7	1.9	10.3	6.3	2.8	.0	.0	22.7
U1320	U1-17 DO YOU USE OR REFER TO CONTROL WORDS?	9.1	4.3	.0	18.8	4.7	.0	.0	13.6
U1321	U1-18 DO YOU USE OR REFER TO RESPONSE WORDS?	7.6	2.5	.0	25.0	3.8	.0	.0	9.1
U1322	U1-19 DO YOU USE OR REFER TO WRAPAROUND WORDS?	.0	1.2	.0	.0	1.9	.0	.0	6.8
U1323	U1-20 DO YOU USE OR REFER TO TEST OR DIAGNOSTIC PROGRAMS?	18.2	3.1	6.9	25.0	7.5	.0	.9	22.7
U1324	U1-21 DO YOU USE OR REFER TO RELIABILITY PROGRAMS?	6.1	.6	3.4	18.8	.9	.0	.0	11.4
U1325	U1-22 DO YOU USE OR REFER TO COMPILERS?	.0	.0	.0	.0	.9	.0	.0	9.1
U1326	U1-23 DO YOU USE OR REFER TO ASSEMBLERS?	.0	.0	.0	.0	.9	.0	.0	9.1
U1327	U1-24 DO YOU USE OR REFER TO MACHINE LANGUAGE?	4.5	1.2	.0	6.3	4.7	.0	.0	15.9
U1328	U1-25 DO YOU USE OR REFER TO MNEMONICS?	18.2	1.2	.0	6.3	4.7	.0	.9	11.4
U1329	U1-26 DO YOU USE OR REFER TO ROUTINES OR SUBROUTINES?	13.6	1.2	3.4	.0	5.7	.0	.9	13.6
U1330	U1-27 DO YOU USE OR REFER TO FLOW CHARTS OR DIAGRAMS?	12.1	3.1	10.3	12.5	4.7	.0	.9	18.2
U1331	U1-28 DO YOU USE OR REFER TO 'ATLAS'?	.0	.0	.0	.0	.9	.0	.0	4.5
U1332	U1-29 DO YOU USE OR REFER TO 'ELAN'?	.0	.0	.0	.0	.9	.0	.0	4.5
U1333	U1-30 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING SYSTEMS?	4.5	.0	.0	.0	1.9	.0	.9	11.4
U1334	U1-31 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING SYSTEMS?	.0	.6	3.4	.0	2.8	.0	.9	6.8
U1335	U1-32 DO YOU WRITE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	.0	.0	.0	.0	2.8	.0	.9	.0
U1336	U1-33 DO YOU USE PROGRAMS FOR TROUBLESHOOTING OF SPECIFIC CIRCUITS?	3.0	1.9	6.9	25.0	6.6	.0	1.8	18.2
U1337	U1-34 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER CONTROL SECTIONS?	27.3	2.5	6.9	6.3	5.7	.0	.0	22.7
U1338	U1-35 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT SECTIONS?	28.8	3.1	10.3	6.3	7.5	.0	.9	20.5
U1339	U1-36 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT SECTIONS?	30.3	3.1	10.3	6.3	6.6	.0	.9	20.5
U1340	U1-37 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR SECTIONS?	25.8	2.5	10.3	6.3	4.7	.0	.9	18.2
U1341	U1-38 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER TRANSMIT SECTIONS?	30.3	4.3	3.4	6.3	3.8	.0	.0	15.9
U1342	U1-39 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER RECEIVE SECTIONS?	28.8	5.0	3.4	6.3	3.8	.0	.0	13.6
U1343	U1-40 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER INPUT DEVICES?	30.3	3.7	6.9	6.3	7.5	.0	.0	25.0
U1344	U1-41 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER STORAGE DEVICES?	24.2	3.7	6.9	6.3	6.6	.0	.0	25.0
U1345	U1-42 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER OUTPUT DEVICES?	30.3	3.7	6.9	6.3	6.6	.0	.0	25.0
U1346	U1-43 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER POWER DEVICES?	25.8	3.7	3.4	6.3	5.7	.0	.0	25.0
U1347	U1-44 DO YOU PERFORM TASKS ON BASIC DIGITAL COMPUTER MONITOR DEVICES?	28.8	3.7	6.9	6.3	4.7	.0	.0	22.7

ELECTRONIC PRINCIPLES INVENTORY DATA ON 5-LEVELS

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TITLES

306 (M)	306 (M)	316 50F (M)	316 52F (M)	362 51 (M)	362 53 (M)	362 54 (M)	918 5C (M)
.0	.0	.0	.0	.9	.0	.9	2.3
.0	.0	.0	.0	.9	.0	.9	4.5
.0	.0	.0	.0	.9	.0	.9	2.3
6.1	2.5	3.4	.0	3.8	4.8	1.8	22.7
4.5	1.9	.0	.0	1.9	.0	.0	22.7
3.0	1.9	.0	.0	1.9	.0	.0	22.7
3.0	4.3	3.4	.0	3.8	.0	.0	29.5
3.0	3.7	.0	.0	3.8	.0	.0	29.5
1.5	.6	.0	.0	.9	.0	.0	22.7
7.6	3.1	3.4	.0	3.8	.0	.0	27.3
4.5	1.9	.0	.0	1.9	.0	.9	20.5
6.1	1.2	.0	.0	3.8	.0	.9	20.5
6.1	1.9	.0	.0	2.8	4.8	.0	22.7
15.2	9.9	.0	.0	47.2	71.4	15.8	36.6
4.5	2.5	.0	.0	6.6	.0	.0	11.4
3.0	2.5	.0	.0	5.7	.0	.9	11.4
21.2	13.7	.0	6.3	54.7	76.2	17.5	31.8
16.7	6.2	.0	6.3	43.4	76.2	12.3	25.0
7.6	3.1	.0	.0	47.2	33.3	7.0	2.3

U1348 U1-45 DO YOU USE FORTRAN PROGRAMMING LANGUAGE?

U1349 U1-46 DO YOU USE COBOL PROGRAMMING LANGUAGE?

U1350 U1-47 DO YOU USE KPS PROGRAMMING LANGUAGE?

U1351 U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?

U1352 U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1353 U1-50 DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1354 U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1355 U1-52 DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?

U1356 U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1357 U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1358 U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1359 U1-56 DO YOU USE BIDIRECTIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1360 U1-57 DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?

U1361 U2-1 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION?

U1362 U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?

U1363 U2-3 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS?

U1364 U2-4 DO YOU USE VTVM (DB METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?

U1365 U2-5 DO YOU USE VTVM (DB METERS) TO CHECK OR ADJUST AUDIO AMPLIFIERS?

U1366 U2-6 DO YOU USE A HP3550 OR 344A TEST SET TO ALIGN AUDIO EQUIPMENT?

EPI INVENTORY DATA FOR 7-SKILL LEVELS

SHEP EPI, CAREER LADDER, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OF PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA. THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATCR 52-22 FOR APP TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/OMVO, AUTOVON 487-5811.

VECTOR TYPE CODES:

- (T) = % TIME SPENT BY ALL MEMBERS
- (M) = % MEMBERS PERFORMING
- (F) = TASK FACTOR
- (D) = DICHOTOMOUS SET
- (B) = % TIME SPENT BY MEMBERS PERFORMING
- (-) = PROGRAM GENERATED VECTOR

NO	TYPE	VECTOR	/MEMBERS/		DESCRIPTION	FACTOR #
			MEAN	SD		
1	M	306 71	42		DAFSC 30671 AIRMEN	3
2	M	306 72	106		DAFSC 30672 AIRMEN	5
3	M	31670F	22		DAFSC 31670F AIRMEN	7
4	M	31672F	6		DAFSC 31672F AIRMEN	9
5	M	362 71	78		DAFSC 36271 AIRMEN	11
6	M	362 73	15		DAFSC 36273 AIRMEN	13
7	M	362 74	80		DAFSC 36274 AIRMEN	15
8	M	918 70	55		DAFSC 91870 AIRMEN	17

SHEP EPI, CAREER LADDER, ELECTRONIC PRINCIPLES INVENTORY (EPI) DATA ARE PRESENTED BELOW EACH DUTY TITLE. DATA FOR THIS PRINTOUT WERE COLLECTED FROM CAREER LADDER INCUMBENTS DURING THE PERIOD AUGUST 1983 THROUGH JANUARY 1984.

USE OF EPI PRINTOUT: THE PERCENT OF VARIOUS CAREER LADDER GROUPS RESPONDING TO EPI QUESTIONS IS LISTED TO THE RIGHT OF EACH EPI ITEM. THUS, THE APPROPRIATE SAMPLE CRITERION GROUPS CAN BE IDENTIFIED WITH THE COLUMN HEADINGS AT THE TOP RIGHT OF EACH PRINTOUT PAGE. THEN THE PERCENT OF THAT GROUP USING THE CONCEPT OF PIECE OF EQUIPMENT CAN BE IDENTIFIED.

USE OF EPI DATA. THESE DATA MAY BE USED IN HELPING TO IDENTIFY, DELINEATE, AND VALIDATE ELECTRONIC PRINCIPLES ITEMS IN THE STS. CRITERIA LISTED IN ATCR 52-22 FOR AIR TRAINING MAY BE USEFUL IN HELPING DEVELOP ENTRY-LEVEL ELECTRONIC PRINCIPLE COURSES. ALSO, CDC WRITERS MAY USE EPI DATA TO HELP DETERMINE AREAS TO EMPHASIZE IN 5- AND 7-SKILL LEVEL CDCS, CONSISTENT WITH STS CODES.

FOR ASSISTANCE IN USING PRINTOUTS PHONE USAFOMC/ONYO, AUTOVON 487-5811.

D TSK	TITLES	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
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A MATHEMATICS (A1), DIRECT CURRENT (A2), RESISTANCE AND
RESISTIVE CIRCUITS (A3)

A 1	A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10?	66.7	55.7	40.9	83.3	60.3	53.3	32.5	92.7
A 2	A1-2 DO YOU USE PUBLICATIONS, SUCH AS TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB?	52.4	30.2	18.2	66.7	37.2	26.7	26.2	60.0
A 3	A1-3 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS?	35.7	20.8	9.1	66.7	33.3	26.7	11.2	69.1
A 4	A1-4 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY?	9.5	8.5	.0	33.3	6.4	.0	.0	27.3
A 5	A1-5 DO YOU SOLVE FOR UNKNOWN QUANTITIES SUCH AS SOLVING FOR X IN THE EQUATION $X + 6 = 8$?	28.6	17.0	4.5	50.0	25.6	20.0	7.5	60.0
A 6	A1-6 DO YOU USE LOGARITHM TABLES?	7.1	4.7	.0	.0	7.7	.0	.0	20.0
A 7	A1-7 DO YOU SOLVE QUADRATIC EQUATIONS SUCH AS SOLVING FOR X IN THE EQUATION $X^2 + 4X + 4 = 0$?	11.0	2.8	4.5	.0	6.4	6.7	.0	14.5
A 8	A1-8 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES?	7.1	6.6	.0	.0	2.6	.0	.0	23.6
A 9	A1-9 DO YOU USE TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT?	2.4	3.8	.0	.0	6.4	.0	.0	16.4
A 10	A1-10 DO YOU SOLVE OR USE PROPORTIONS? AN EXAMPLE OF A PROPORTION IS $2 : 5 :: 4 : 10$. ANOTHER WAY TO EXPRESS THE SAME RELATIONSHIP IS $2/5 = 4/10$. SOMETIMES, ONE OF THE QUANTITIES IS UNKNOWN AND HAS TO BE SOLVED FOR, SUCH AS $2 : X :: 4 : 10$ (X IN THIS CASE IS UNKNOWN).	21.4	13.2	13.6	33.3	10.3	13.3	5.0	49.1
A 11	A1-11 DO YOU USE MATHEMATICAL EXPONENTS OR SUBSCRIPTS IN OTHER THAN POWERS OF 10?	31.0	19.8	9.1	16.7	12.8	13.3	7.5	52.7
A 12	A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OF VOLT (V)?	88.1	85.8	90.9	100.0	93.6	86.7	82.5	100.0

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A 13	A2-2	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTROMOTIVE FORCE (EMF)?	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
A 14	A2-3	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CHM?	31.0	42.5	13.6	33.3	52.6	13.3	23.7	70.9
A 15	A2-4	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ION?	83.3	83.0	86.4	100.0	91.0	80.0	76.7	98.2
A 16	A2-5	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM DYNE?	9.5	11.3	13.6	83.3	3.8	.0	1.2	69.1
A 17	A2-6	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?	2.4	7.5	.0	33.3	3.8	.0	2.5	25.5
A 18	A2-7	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM NEUTRON?	83.3	82.1	63.6	83.3	84.6	66.7	78.7	100.0
A 19	A2-8	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM COULOMB?	14.3	15.1	.0	33.3	15.4	6.7	7.5	56.4
A 20	A2-9	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM PROTON?	14.3	11.3	.0	.0	7.7	.0	2.5	45.5
A 21	A2-10	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM ELECTRON?	14.3	17.0	.0	33.3	14.1	6.7	7.5	50.9
A 22	A2-11	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?	54.8	41.5	13.6	83.3	44.9	20.0	16.2	85.5
A 23	A2-12	DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM WATTAGE?	85.7	87.7	63.6	100.0	89.7	66.7	81.3	100.0
A 24	A2-13	DO YOU DETERMINE IF TWO OR MORE BATTERIES MUST BE CONNECTED IN SERIES OR PARALLEL TO ACHIEVE A SPECIFIC VOLTAGE AND/OR CURRENT?	76.2	74.5	63.6	100.0	70.5	60.0	47.5	100.0
A 25	A3-1	DO YOU WORK WITH RESISTORS OR RESISTIVE CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM B1-1; IF YES, CONTINUE.	28.6	37.7	18.2	83.3	57.7	40.0	25.0	83.6
A 26	A3-2	DO YOU INSPECT RESISTORS?	66.7	59.4	9.1	66.7	64.1	60.0	31.3	81.8
A 27	A3-3	DO YOU CLEAN RESISTORS?	64.3	63.2	4.5	100.0	57.7	73.3	22.5	98.2
			50.0	43.4	.0	83.3	39.7	40.0	12.5	87.3

EPI INVENTORY DATA FOR 7-SKILL LEVELS

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A 28	A3-4 DO YOU ADJUST RESISTORS?	706	306	316	316	362	362	362	918
A 29	A3-5 DO YOU MEASURE RESISTORS?	71	72	70F	72F	71	73	74	70
A 30	A3-6 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS OR ANY TASK YOU PERFORM?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
A 31	A3-7 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY CARBON?	71.4	61.3	4.5	83.3	53.8	73.3	13.7	96.4
A 32	A3-8 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED WIRE?	69.0	66.0	9.1	100.0	61.5	66.7	25.0	98.2
A 33	A3-9 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY SLIDE TAP?	28.6	17.0	.0	33.3	16.7	21.0	3.7	61.8
A 34	A3-10 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY PHOTOSTAT?	54.8	38.7	4.5	66.7	41.0	53.3	11.2	89.1
A 35	A3-11 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY POTENTIOMETER?	54.8	51.9	9.1	83.3	53.8	73.3	26.2	87.3
A 36	A3-12 DO YOU USE OR REFER TO SYMBOLS THAT IDENTIFY OR CLASSIFY FIXED FILM?	38.1	39.6	.0	66.7	30.6	66.7	10.0	90.9
A 37	A3-13 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE VALUE OF RESISTANCE?	54.8	57.5	9.1	83.3	57.7	73.3	26.2	94.5
A 38	A3-14 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE?	71.4	60.4	9.1	83.3	57.7	80.0	30.0	96.4
A 39	A3-15 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE?	26.2	17.9	4.5	66.7	19.2	40.0	3.7	69.1
A 40	A3-16 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES?	66.7	62.3	9.1	100.0	57.7	66.7	22.5	98.2
A 41	A3-17 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	66.7	53.8	9.1	83.3	53.8	46.7	13.7	96.4
A 42	A3-18 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR SERIES RESISTIVE CIRCUITS?	26.2	14.2	4.5	66.7	21.8	6.7	5.0	30.9
		73.8	66.0	13.6	100.0	64.1	60.0	42.5	92.7
		57.1	49.1	13.6	83.3	56.4	40.0	33.7	90.9
		57.1	47.2	13.6	83.3	51.3	40.0	31.3	87.3

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- A 43 A3-19 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES RESISTIVE CIRCUITS?
- A 44 A3-20 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES RESISTIVE CIRCUITS?
- A 45 A3-21 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 46 A3-22 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
SERIES PARALLEL RESISTIVE CIRCUITS?
- A 47 A3-23 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 48 A3-24 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 49 A3-25 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR SERIES PARALLEL RESISTIVE CIRCUITS?
- A 50 A3-26 DO YOU USE OR REFER TO TOTAL RESISTANCE PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
- A 51 A3-27 DO YOU USE OR REFER TO TOTAL CURRENT PARAMETERS FOR
PARALLEL RESISTIVE CIRCUITS?
- A 52 A3-28 DO YOU USE OR REFER TO INDIVIDUAL VOLTAGE DROP
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
- A 53 A3-29 DO YOU USE OR REFER TO INDIVIDUAL BRANCH CURRENT
PARAMETERS FOR PARALLEL RESISTIVE CIRCUITS?
- A 54 A3-30 DO YOU USE OR REFER TO POWER DISSIPATION PARAMETERS
FOR PARALLEL RESISTIVE CIRCUITS?
- A 55 A3-31 DO YOU CALCULATE TOTAL RESISTANCE PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?
- A 56 A3-32 DO YOU CALCULATE TOTAL CURRENT PARAMETERS FOR SERIES
RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

306	306	316	316	362	362	362	918
71	72	70F	70F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
52.4	48.1	13.6	83.3	47.4	46.7	27.5	96.4
50.0	33.0	4.5	66.7	41.0	20.0	16.2	76.4
52.4	48.1	13.6	83.3	52.6	46.7	32.5	90.9
50.4	47.2	13.6	83.3	46.2	40.0	28.7	89.1
42.0	48.1	13.6	83.3	38.5	46.7	25.0	94.5
42.0	45.3	13.6	83.3	39.7	26.7	22.5	90.9
42.9	30.2	4.5	66.7	35.9	13.3	16.2	76.4
50.0	44.3	9.1	83.3	47.4	40.0	31.3	87.3
50.0	41.5	13.6	83.3	46.2	33.3	28.7	85.5
47.6	43.4	9.1	83.3	39.7	26.7	22.5	94.5
47.6	41.5	13.6	83.3	39.7	26.7	21.2	87.3
42.0	26.4	4.5	66.7	33.3	13.3	13.7	78.2
50.0	34.9	9.1	83.3	44.9	33.3	22.5	83.6
47.6	34.0	9.1	83.3	43.6	26.7	21.2	81.8

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A 57 A3-33 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROP PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 58 A3-34 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENT PARAMETERS
FOR SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR
PARALLEL RESISTIVE CIRCUITS?
A 59 A3-35 DO YOU CALCULATE POWER DISSIPATION PARAMETERS FOR
SERIES RESISTIVE, SERIES PARALLEL RESISTIVE, OR PARALLEL
RESISTIVE CIRCUITS?

B METERS/MULTIMETERS (B1), ALTERNATING CURRENT (AC) (B2),
INDUCTORS AND INDUCTIVE REACTANCE (B3)

B 60 B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE RESISTANCE?
B 61 B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE VOLTAGE?
B 62 B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE CURRENT?
B 63 B1-4 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE POWER?
B 64 B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE FREQUENCY?
B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE TEMPERATURE?
B 66 B1-7 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE PRESSURE?

306	306	316	316	362	362	362	362	918
71	72	70F	72F	71	73	74	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
45.2	35.8	9.1	83.2	34.6	20.0	17.5	90.9	
40.5	32.1	9.1	83.2	35.9	20.0	17.5	83.6	
38.1	23.6	4.5	66.7	29.5	13.3	11.2	72.7	
76.6	73.6	68.2	100.0	82.1	73.3	62.5	98.2	
78.6	74.5	77.3	100.0	82.1	73.3	70.0	96.4	
57.1	67.9	50.0	83.3	70.5	40.0	47.5	92.7	
31.0	27.4	40.9	50.0	41.0	20.0	31.3	70.9	
69.0	39.6	36.4	83.3	67.9	53.3	16.2	92.7	
26.2	3.8	50.0	83.3	30.8	6.7	2.5	81.8	
23.8	5.7	54.5	83.3	23.1	.0	3.7	72.7	

O TASK TITLES

8 67 81-8 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB
TO MEASURE LIGHT LEVELS?
9 68 82-1 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM EFFECTIVE VOLTAGE (RMS) IN YOUR PRESENT JOB?
8 69 82-2 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM PEAK TO PEAK VOLTAGE IN YOUR PRESENT JOB?
8 70 82-3 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM AVERAGE VOLTAGE (DC) IN YOUR PRESENT JOB?
8 71 82-4 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM WAVE LENGTH IN YOUR PRESENT JOB?
8 72 82-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM FREQUENCY IN YOUR PRESENT JOB?
8 73 82-6 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM INSTANTANEOUS VALUE IN YOUR PRESENT JOB?
8 74 82-7 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC)
TERM PHASE RELATIONSHIPS IN YOUR PRESENT JOB?
8 75 83-1 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING
INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM C1-1; IF YES, CONTINUE.

8 76 83-2 DO YOU INSPECT INDUCTORS?
8 77 83-3 DO YOU CLEAN INDUCTORS?
8 78 83-4 DO YOU ADJUST INDUCTORS?
8 79 83-5 DO YOU MEASURE INDUCTORS?
8 80 83-6 DO YOU USE OR REFER TO INDUCTANCE?
8 81 83-7 DO YOU USE OR REFER TO HENRIES?
8 82 83-8 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?
8 83 83-9 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?
8 84 83-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?
8 85 83-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN
INDUCTORS?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
11.0	.9	4.5	33.3	5.1	.0	1.2	58.2
64.3	47.2	9.1	66.7	35.9	66.7	13.7	89.1
69.0	55.7	13.6	100.0	39.7	66.7	8.7	92.7
57.1	46.2	18.2	100.0	44.9	53.3	22.5	81.4
33.3	33.0	9.1	66.7	25.6	46.7	3.7	78.2
66.7	54.7	40.0	100.0	56.4	66.7	18.8	94.5
14.3	12.3	.0	50.0	11.5	6.7	.0	47.3
47.6	31.1	13.6	83.3	21.8	13.3	1.2	89.1
47.6	31.1	.0	83.3	29.5	20.0	13.7	60.0
47.6	34.9	.0	83.3	26.9	33.3	7.5	76.4
38.1	27.4	.0	66.7	17.9	26.7	5.0	58.2
28.6	18.9	.0	50.0	12.8	13.3	1.2	67.3
28.6	33.0	.0	66.7	20.5	13.3	2.5	49.1
45.2	32.1	.0	83.3	28.2	20.0	11.2	60.0
35.7	21.7	.0	50.0	19.2	6.7	2.5	58.2
31.0	23.6	.0	33.3	20.5	13.3	6.3	50.9
7.1	6.6	.0	.0	10.3	.0	2.5	27.3
7.1	10.4	.0	.0	5.1	.0	2.5	27.3
4.8	11.3	.0	.0	5.1	.0	1.2	29.1

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D TSM TITLES

B 86 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF
TURNS OF THE COIL?
B 87 B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS
SECTIONAL AREA OF THE CORE?
B 88 B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS
LENGTH?
B 89 B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE
PERMEABILITY OF THE COPE MATERIAL?
B 90 B3-16 DO YOU CALCULATE INDUCTANCE IN ELECTRICAL/ELECTRONIC
CIRCUITS?
B 91 B3-17 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT
LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?
B 92 B3-18 DO YOU CALCULATE INDUCTIVE REACTANCE?
B 93 B3-19 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO
FREQUENCY?
B 94 B3-20 DO YOU WORK WITH POWER INDUCTORS?
B 95 B3-21 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?
B 96 B3-22 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?

C CAPACITORS AND CAPACITIVE REACTANCE (C1), TRANSFORMERS (C2),
MAGNETISM (C3)

306	306	316	316	362	362	362	362	918
71	72	70F	72F	71	73	74	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
2.4	10.4	.0	16.7	14.1	.0	5.0	27.3	
.0	7.5	.0	.0	11.5	.0	3.7	21.8	
2.4	9.4	.0	.0	9.0	.0	2.5	20.7	
2.4	7.5	.0	.0	11.5	.0	2.5	16.4	
7.1	11.3	.0	33.3	10.3	.0	2.5	27.3	
16.7	15.1	.0	50.0	20.5	.0	3.7	49.1	
4.8	10.4	.0	16.7	11.5	.0	2.5	25.5	
16.7	11.3	.0	16.7	15.4	.0	2.5	38.2	
40.5	20.8	.0	33.3	16.7	13.3	3.7	52.7	
28.6	8.5	.0	16.7	20.5	20.0	7.5	49.1	
28.6	9.4	.0	16.7	5.1	6.7	1.2	49.1	

D TSK TITLES

C 97 C1-1 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM C2-1; IF YES, CONTINUE.

C 98 C1-2 DO YOU INSPECT CAPACITORS?

C 99 C1-3 DO YOU CLEAN CAPACITORS?

C 100 C1-4 DO YOU ADJUST CAPACITORS?

C 101 C1-5 DO YOU TEST CAPACITORS?

C 102 C1-6 DO YOU DISCHARGE CAPACITORS?

C 103 C1-7 DO YOU MEASURE CAPACITORS?

C 104 C1-8 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE?

C 105 C1-9 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC?

C 106 C1-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS?

C 107 C1-11 DO YOU USE OR REFER TO CAPACITANCE?

C 108 C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT?

C 109 C1-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS?

C 110 C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE?

C 111 C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES?

C 112 C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS?

C 113 C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS?

C 114 C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC?

C 115 C1-19 DO YOU CALCULATE CAPACITANCE IN ELECTRICAL/ELECTRONIC CIRCUITS?

C 116 C1-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
73.8	60.4	22.7	100.0	65.4	66.7	36.2	94.5
61.9	53.8	9.1	100.0	56.4	73.3	21.2	96.4
45.7	39.6	.0	83.2	38.5	46.7	8.7	63.6
26.2	18.9	.0	66.7	12.8	13.3	1.2	83.6
54.8	52.8	.0	66.7	55.1	66.7	18.8	89.1
69.0	52.8	4.5	66.7	50.0	66.7	20.0	94.5
33.3	48.1	9.1	66.7	39.5	26.7	12.5	74.5
4.8	8.5	.0	66.7	20.5	.0	1.2	29.1
2.4	4.7	.0	16.7	9.0	.0	.0	5.5
64.3	52.8	.0	100.0	52.6	40.0	17.5	83.6
64.3	49.1	4.5	100.0	55.1	46.7	27.5	87.3
7.1	11.3	.0	33.3	12.8	.0	2.5	23.6
57.1	42.5	9.1	83.3	39.7	60.0	16.2	89.1
28.6	20.8	.0	83.3	29.5	6.7	6.3	52.7
28.6	13.2	.0	66.7	26.9	6.7	6.3	36.4
78.6	63.2	9.1	100.0	65.4	73.3	28.7	96.4
78.6	58.5	9.1	100.0	39.7	53.3	28.7	96.4
64.3	52.8	13.6	100.0	43.6	60.0	26.2	96.4
16.7	8.5	.0	33.3	17.9	.0	6.3	30.9
7.1	10.4	.0	33.3	14.1	.0	2.5	25.5

D TSK

TITLES

C 117 C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS?
 C 118 C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO?
 C 119 C1-23 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS?
 C 120 C1-24 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY?
 C 121 C1-25 DO YOU CALCULATE CAPACITIVE REACTANCE?
 C 122 C1-26 DO YOU WORK WITH VARIABLE CAPACITORS?
 C 123 C1-27 DO YOU WORK WITH TRIMMER CAPACITORS?
 C 124 C1-28 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS?
 C 125 C1-29 DO YOU WORK WITH OTHER FIXED CAPACITORS?
 C 126 C2-1 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB?
 IF NO, GO TO ITEM C3-1; IF YES, CONTINUE.
 C 127 C2-2 DO YOU INSPECT TRANSFORMERS?
 C 128 C2-3 DO YOU CLEAN TRANSFORMERS?
 C 129 C2-4 DO YOU ADJUST TRANSFORMERS?
 C 130 C2-5 DO YOU TROUBLESHOOT TRANSFORMERS?
 C 131 C2-6 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTANCE AND MUTUAL INDUCTANCE (M)?
 C 132 C2-7 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M?
 C 133 C2-8 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS?
 C 134 C2-9 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS?

306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 72 (M)
4.8	6.6	.0	16.7	10.3	.0	1.2	20.0
33.3	34.0	9.1	50.0	28.2	26.7	16.2	63.6
21.4	18.9	4.5	33.3	17.9	6.7	7.5	54.5
14.3	11.3	.0	16.7	16.7	.0	5.0	34.5
4.8	7.5	.0	16.7	10.3	.0	3.7	21.8
31.0	22.6	4.5	66.7	19.2	13.3	5.0	81.8
21.4	16.0	4.5	66.7	11.5	6.7	1.2	74.5
73.8	54.7	13.6	100.0	53.6	60.0	22.5	96.4
69.0	49.1	9.1	83.3	47.4	60.0	22.5	89.1
69.0	51.9	31.8	83.3	41.0	66.7	16.2	80.0
57.1	49.1	18.2	100.0	35.9	66.7	15.0	90.9
45.2	36.8	.0	83.3	28.2	40.0	7.5	65.5
7.1	17.9	.0	50.0	19.2	20.0	2.5	70.9
57.1	44.3	18.2	83.3	25.6	60.0	11.2	85.5
2.4	2.8	.0	.0	2.6	.0	2.5	21.8
2.4	1.9	.0	.0	2.6	.0	2.5	20.0
7.1	7.5	.0	16.7	5.1	.0	2.5	16.4
11.9	10.4	4.5	33.3	6.4	13.3	2.5	54.5

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D TSK TITLES

C 135	C2-10	DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS?	4.0	6.6	.0	.0	7.7	6.7	2.5	20.0
C 136	C2-11	DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS?	.0	.9	.0	.0	5.1	.0	.0	7.3
C 137	C2-12	DO YOU WORK WITH AUTOTRANSFORMERS?	14.3	17.0	.0	16.7	9.0	6.7	1.2	87.3
C 138	C2-13	DO YOU WORK WITH POWER TRANSFORMERS?	61.9	48.1	27.3	100.0	32.1	46.7	18.8	90.9
C 139	C2-14	DO YOU WORK WITH AUDIO TRANSFORMERS?	28.6	13.2	4.5	16.7	24.4	46.7	12.5	65.5
C 140	C2-15	DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS?	19.0	11.3	4.5	.0	7.7	.0	.0	56.4
C 141	C2-16	DO YOU WORK WITH SATURABLE CORE TRANSFORMERS?	7.1	1.9	.0	33.3	10.3	.0	.0	40.0
C 142	C2-17	DO YOU WORK WITH SENSING TRANSFORMERS?	4.8	2.8	4.5	33.3	6.4	.0	.0	43.6
C 143	C2-18	DO YOU WORK WITH CONTROL TRANSFORMERS?	11.9	7.5	9.1	50.0	11.5	.0	.0	63.6
C 144	C2-19	DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE?	59.5	47.2	4.5	100.0	30.8	46.7	10.0	81.8
C 145	C2-20	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE?	54.2	45.3	4.5	100.0	28.2	33.3	10.0	76.4
C 146	C2-21	DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES?	52.4	43.4	13.6	100.0	25.6	46.7	6.3	87.3
C 147	C2-22	DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	11.9	22.6	.0	33.3	16.7	26.7	2.5	47.3
C 148	C2-23	DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO?	21.4	35.8	4.5	50.0	21.8	20.0	3.7	76.4
C 149	C2-24	DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS?	72.8	50.0	22.7	100.0	35.9	46.7	17.5	89.1
C 150	C2-25	DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	60.0	45.3	9.1	100.0	26.9	46.7	8.7	85.5
C 151	C2-26	DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	69.0	45.3	9.1	100.0	30.8	33.3	10.0	85.5
C 152	C2-27	DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	73.8	50.0	4.5	100.0	32.1	46.7	12.5	89.1

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C 153	C2-28 DO YOU REFER TO AIR COPE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	306 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918
C 154	C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	52.4	26.4	4.5	83.3	23.1	33.3	10.0	76.4	
C 155	C2-30 DO YOU REFER TO VARIABLE TRANSFORMER SCHEMATIC SYMBOLS?	23.8	28.3	4.5	100.0	23.1	26.7	6.3	78.2	
C 156	C2-31 DO YOU REFER TO COMBINATIONS OF SCHEMATIC SYMBOLS FOR TRANSFORMERS?	61.9	34.9	4.5	100.0	26.9	20.0	8.7	76.4	
C 157	C2-32 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS?	28.6	17.0	9.1	50.0	15.4	6.7	3.7	65.5	
C 158	C2-33 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH?	31.0	14.2	.0	66.7	15.4	13.3	6.3	30.9	
C 159	C2-34 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	14.3	16.0	.0	33.3	14.1	6.7	2.5	54.5	
C 160	C2-35 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	28.6	30.2	4.5	66.7	24.4	33.3	7.5	74.5	
C 161	C2-36 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	9.5	11.3	.0	.0	9.0	13.3	1.2	41.8	
C 162	C2-37 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	9.5	8.5	.0	.0	3.8	.0	1.2	29.1	
C 163	C2-38 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS?	19.0	7.5	18.2	100.0	14.1	.0	1.2	78.2	
C 164	C2-39 DO YOU INSPECT THREE PHASE TRANSFORMERS?	16.7	4.7	13.6	66.7	14.1	.0	.0	72.7	
C 165	C2-40 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS?	14.3	4.7	.0	33.3	6.4	.0	.0	43.6	
C 166	C2-41 DO YOU ADJUST THREE PHASE TRANSFORMERS?	7.1	3.8	4.5	16.7	7.7	6.7	.0	36.4	
C 167	C2-42 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS?	19.0	4.7	18.2	100.0	12.8	6.7	.0	67.3	
C 168	C3-1 DO YOU USE OR REFER TO PERMANENT MAGNETS?	31.0	37.7	4.5	50.0	28.2	6.7	27.5	61.8	
C 169	C3-2 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	33.3	33.0	4.5	33.3	38.5	6.7	7.5	45.5	

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D TSK	TITLES	306 (M)	306 (M)	72 (M)	316 (M)	316 (M)	362 (M)	362 (M)	71 (M)	73 (M)	362 (M)	362 (M)	71 (M)	73 (M)	918 (M)
C 170 C3-3	DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	7.1	14.2	.0	.0	20.5	.0	2.5	.0	2.5	25.5				
C 171 C3-4	DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	9.5	12.3	.0	.0	19.2	.0	2.5	.0	2.5	23.6				
C 172 C3-5	DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS?	11.9	12.3	.0	16.7	15.4	.0	2.5	.0	2.5	29.1				
C 173 C3-6	DO YOU USE OR REFER TO RESIDUAL MAGNETISM?	19.0	27.4	.0	.0	61.5	13.3	1.2	29.1						
C 174 C3-7	DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX?	26.2	24.5	9.1	16.7	28.2	.0	12.5	40.0						
C 175 C3-8	DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM?	7.1	3.8	.0	.0	7.7	.0	1.2	18.2						
C 176 C3-9	DO YOU USE OR REFER TO LOMAIN THEORY OF MAGNETISM?	7.1	3.8	.0	.0	6.4	.0	1.2	16.4						
C 177 C3-10	DO YOU USE OR REFER TO MAGNETIC INDUCTION?	26.2	20.8	4.5	16.7	32.1	6.7	20.0	40.0						
C 178 C3-11	DO YOU USE OR REFER TO FLUX DENSITY?	14.3	7.5	.0	16.7	10.3	.0	.0	27.3						
C 179 C3-12	DO YOU USE OR REFER TO SATURABLE REACTANCE?	7.1	2.8	.0	33.3	10.3	.0	.0	20.0						

D RCL CIRCUITS (D1), TIME CONSTANTS (D2), FILTERS (D3)

C 180 D1-1 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM D2-1; IF YES, CONTINUE.

D 181 D1-2 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS?

D 182 D1-3 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS?

D 183 D1-4 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS?

D 184 D1-5 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS?

47.6	17.0	4.5	33.3	17.9	6.7	6.3	67.3
9.5	6.6	.0	.0	2.6	.0	.0	25.5
9.5	7.5	.0	.0	2.6	.0	.0	16.4
9.5	5.7	.0	.0	5.1	13.3	.0	14.5
11.9	4.7	.0	.0	3.8	13.3	.0	12.7

EPI INVENTORY DATA FOR 7-SKILL LEVELS

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D TSM TITLES

D 200 D1-21 DO YOU DETERMINE VALUES OR TRIGONOMETRIC FUNCTIONS
USING FORMULAS SUCH AS: SINE OF ANGLE = OPPOSITE SIDE/
HYPOTENUSE?

D 201 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR

DIAGRAMS FOR CIRCUITS?

D 202 D1-23 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR CAPACITIVE

CIRCUITS?

D 203 D1-24 DO YOU USE OR REFER TO PHASE ANGLES BETWEEN IMPEDANCE

AND RESISTANCE IN CAPACITIVE CIRCUITS?

D 204 D1-25 DO YOU USE OR REFER TO TOTAL IMPEDANCE FOR SERIES RCL

CIRCUITS?

D 205 D1-26 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR SERIES

RCL CIRCUITS?

D 206 D1-27 DO YOU USE OR REFER TO APPARENT POWER (P SUB A) FOR

SERIES RCL CIRCUITS?

D 207 D1-28 DO YOU USE OR REFER TO TRUE POWER (P SUB T) FOR

SERIES RCL CIRCUITS?

D 208 D1-29 DO YOU USE OR REFER TO POWER FACTORS (PF) FOR SERIES

RCL CIRCUITS?

D 209 D1-30 DO YOU USE OR REFER TO TOTAL CURRENT FOR PARALLEL RCL

CIRCUITS?

D 210 D1-31 DO YOU USE OR REFER TO IMPEDANCE ANGLES FOR PARALLEL

RCL CIRCUITS?

D 211 D1-32 DO YOU USE THE ASSUMED VOLTAGE METHOD FOR DETERMINING

TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS?

D 212 D1-33 DO YOU USE OHM'S LAW FOR DETERMINING TOTAL IMPEDANCE

FOR PARALLEL RCL CIRCUITS?

D 213 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS?

D 214 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION?

D 215 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS?

306	306	316	362	362	362	918
71	72	70F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)
9.5	3.8	.0	.0	2.6	.0	1.2 10.9
11.0	5.7	.0	.0	5.1	.0	.0 18.2
16.7	7.5	.0	16.7	9.0	6.7	2.5 21.8
11.0	5.7	.0	16.7	3.8	.0	2.5 21.8
14.3	7.5	.0	16.7	7.7	.0	1.2 23.6
7.1	5.7	.0	.0	2.6	.0	.0 14.5
7.1	6.6	.0	.0	3.8	.0	.0 21.8
7.1	7.5	.0	.0	5.1	6.7	.0 27.3
7.1	6.6	.0	.0	5.1	.0	1.2 21.8
16.7	8.5	.0	33.3	9.0	6.7	1.2 30.9
7.1	6.6	.0	16.7	1.3	.0	1.2 12.7
14.3	2.8	.0	16.7	.0	6.7	1.2 16.4
16.7	7.5	.0	33.3	14.1	6.7	1.2 32.7
45.2	18.9	.0	50.0	16.7	13.3	5.0 67.3
23.8	6.6	.0	16.7	10.3	6.7	1.2 52.7
40.5	17.9	.0	50.0	15.4	13.3	2.5 58.2

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C TASK TITLES

C TASK	TITLES	306 (M)	306 (M)	72 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	73 (M)	74 (M)	918 (M)
D 216	D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION?	23.8	6.6	.0	16.7	10.3	.0	1.2	43.6			
D 217	D1-38 DO YOU CHECK RESISTORS USING OHMMETERS?	42.0	20.8	.0	66.7	16.7	13.3	5.0	49.1			
D 218	D1-39 DO YOU CHECK RESISTORS USING SUBSTITUTION?	23.8	7.5	.0	16.7	10.3	6.7	1.2	49.1			
D 219	D1-40 DO YOU USE OR REFER TO THE RULE THAT PHASE ANGLE (THETA) = G, POWER FACTOR (PF) = 1, AND APPARENT POWER (P SUB A) = TRUE POWER (P SUB T) FOR RESONANT CIRCUITS?	2.4	5.7	.0	.0	1.3	.0	1.2	14.5			
D 220	D1-41 DO YOU USE OR REFER TO RESONANT FREQUENCIES FOR RCL CIRCUITS?	14.3	8.5	.0	.0	6.4	20.0	1.2	40.0			
D 221	D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS?	14.3	5.7	.0	.0	7.7	.0	1.2	27.3			
D 222	D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS?	14.3	7.5	.0	.0	6.4	.0	1.2	23.6			
D 223	D1-44 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 OF THE PEAK CURRENT VALUE?	7.1	3.8	.0	.0	5.1	.0	1.2	30.9			
D 224	D1-45 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO THE QUALITY OF THE COIL (Q)?	9.5	4.7	.0	.0	3.8	.0	2.5	14.5			
D 225	D1-46 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS?	18.3	5.7	.0	.0	2.6	.0	1.2	25.5			
D 226	D2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS? IF NO, GO TO ITEM D3-1; IF YES, CONTINUE.	26.2	7.5	4.5	.0	2.6	.0	.0	38.2			
D 227	D2-2 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)?	21.4	6.6	.0	16.7	2.6	.0	.0	25.5			
D 228	D2-3 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS?	9.5	5.7	.0	.0	2.6	.0	.0	12.7			

D TSP TITLES

D 229 D2-4 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LF CIRCUITS?

D 230 D2-5 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LF CIRCUITS?

D 231 D2-6 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES?

D 232 D2-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS?

D 233 D3-1 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM E1-1; IF YES, CONTINUE.

D 234 D3-2 DO YOU INSPECT FILTER CIRCUITS?

D 235 D3-3 DO YOU CLEAN FILTER CIRCUITS?

D 236 D3-4 DO YOU ALIGN OR ADJUST FILTER CIRCUITS?

D 237 D3-5 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL?

D 238 D3-6 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS?

D 239 D3-7 DO YOU WORK WITH LOW PASS FILTERS?

D 240 D3-8 DO YOU WORK WITH HIGH PASS FILTERS?

D 241 D3-9 DO YOU WORK WITH BANDPASS FILTERS?

D 242 D3-10 DO YOU WORK WITH BAND-REJECT FILTERS?

D 243 D3-11 DO YOU WORK WITH FILTERS BUT DON'T REMEMBER WHICH TYPE?

D 244 D3-12 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS?

D 245 D3-13 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS?

D 246 D3-14 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	77
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
9.5	7.5	.0	16.7	1.3	.0	.0	18.2
7.1	6.6	.0	16.7	2.6	6.7	.0	14.5
4.8	4.7	.0	16.7	1.3	.0	.0	18.2
7.1	5.7	.0	16.7	1.3	.0	.0	16.4
64.3	27.4	9.1	50.0	17.9	60.0	13.7	65.5
52.4	24.5	.0	50.0	11.5	53.3	7.5	63.6
47.6	16.0	.0	33.3	10.3	33.3	3.7	36.4
21.4	10.4	.0	33.3	10.3	13.3	2.5	54.5
47.6	21.7	4.5	50.0	12.8	40.0	6.3	60.0
45.2	19.8	.0	50.0	9.0	33.3	3.7	61.8
52.4	15.1	.0	50.0	11.5	46.7	3.7	63.6
45.2	9.4	.0	50.0	11.5	46.7	1.2	63.6
38.1	9.4	.0	16.7	10.3	13.3	3.7	58.2
28.6	4.7	.0	16.7	6.4	.0	1.2	40.0
14.3	6.6	4.5	16.7	3.8	6.7	6.3	20.0
42.9	12.3	4.5	16.7	7.7	.0	2.5	47.3
42.9	10.4	.0	16.7	7.7	13.3	1.2	43.6
40.5	11.3	.0	16.7	6.4	6.7	2.5	49.1

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106	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)

O TSK

TITLE

O 247 D3-15 DO YOU WORK WITH YTTIUM IFON GARNET (YIG) FILTERS?
D 248 D3-16 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
CAPACITANCE OR IMPEDANCE VALUES REQUIRED FOR SPECIFIC
FILTERS?

7.1	.0	.0	.0	.0	.0	.0	.0
7.1	1.9	.0	.0	2.6	.0	1.2	9.1

E COUPLING (E1), SOLDERING OF SOLDERLESS CONNECTIONS(E2),
RELAYS (E3)

E 249 E1-1 DO YOU WORK WITH COUPLING DEVICES OR CIRCUITRY IN YOUR
PRESENT JOB? IF NO, GO TO ITEM E2-1; IF YES, CONTINUE.
E 250 E1-2 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC
COUPLING?
E 251 E1-3 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
IMPEDANCE COUPLING (MATCHING)?
E 252 E1-4 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
OPTICAL COUPLING?
E 253 E1-5 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
TRANSFORMER COUPLING?
E 254 E1-6 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
WHICH PERFORM RC COUPLING?
E 255 E1-7 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
WHICH PERFORM IMPEDANCE COUPLING?
E 256 E1-8 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS
WHICH PERFORM TRANSFORMER COUPLING?

52.4	21.7	9.1	16.7	14.1	26.7	7.5	69.1
45.2	17.9	4.5	33.3	11.5	6.7	3.7	78.2
38.1	15.1	4.5	16.7	12.8	26.7	7.5	69.1
10.0	11.3	.0	16.7	1.3	.0	.0	60.0
35.7	16.0	.0	33.3	14.1	13.3	6.3	74.5
42.9	13.2	4.5	16.7	11.5	13.3	3.7	78.2
38.1	10.4	4.5	16.7	14.1	33.3	7.5	69.1
31.0	11.3	.0	33.3	14.1	13.3	7.5	74.5

D TASK TITLES

E 257 E1-9 DO YOU WORK WITH DIRECT COUPLED CIRCUITS?
E 258 E1-10 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS?

E 259 E1-11 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS?

E 260 E1-12 DO YOU WORK WITH OPTICAL COUPLING?
E 261 E1-13 DO YOU WORK WITH OPTICAL COUPLING CIRCUITS?
E 262 E1-14 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS?
E 263 E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.

E 264 E2-2 DO YOU SOLDER CONNECTIONS?
E 265 E2-3 DO YOU DESOLDER CONNECTIONS?
E 266 E2-4 DO YOU PERFORM HIGH RELIABILITY SOLDERING?
E 267 E2-5 DO YOU INSPECT SOLDERED CONNECTIONS?
E 268 E2-6 DO YOU CLEAN OR TIN CONNECTIONS?
E 269 E2-7 DO YOU MAKE HARDWIRE CONNECTIONS?
E 270 E2-8 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS?
E 271 E2-9 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS?

E 272 E2-10 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS?
E 273 E2-11 DO YOU SOLDER ACTIVE COMPONENTS, SUCH AS INTEGRATED CIRCUITS?

E 274 E2-12 DO YOU PERFORM WIRE WRAPPING IN LIEU OF SOLDERING?
E 275 E2-13 DO YOU PERFORM CRIMPING IN LIEU OF SOLDERING?
E 276 E2-14 DO YOU PERFORM WIRE CONNECTIONS USING A 714 PUNCH-ON TOOL IN LIEU OF SOLDERING?

E 277 E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.

304	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
42.9	19.8	.0	33.3	15.4	13.3	3.7	78.2
42.9	17.9	4.5	33.3	11.5	6.7	2.5	76.4
28.6	12.3	4.5	.0	12.8	6.7	2.5	70.9
16.7	9.4	.0	.0	1.3	.0	.0	60.0
16.7	9.4	.0	.0	1.3	.0	.0	61.8
31.0	16.0	.0	33.3	14.1	13.3	6.3	74.5
66.7	58.5	18.2	83.3	74.4	66.7	47.5	97.9
66.7	61.3	4.5	83.3	79.5	66.7	56.3	92.7
66.7	60.4	4.5	83.3	79.5	66.7	56.3	92.7
64.3	48.1	.0	66.7	53.8	26.7	22.5	70.9
66.7	60.4	4.5	83.3	78.2	66.7	55.0	92.7
66.7	61.3	4.5	83.3	76.9	66.7	47.5	92.7
64.3	59.4	4.5	83.3	75.6	60.0	56.3	90.9
64.3	55.7	9.1	83.3	52.6	60.0	17.5	92.7
64.3	59.4	4.5	83.3	66.7	66.7	17.5	92.7
64.3	58.5	4.5	83.3	55.1	53.3	12.5	92.7
64.3	41.5	4.5	33.3	32.1	6.7	7.5	89.1
57.1	19.8	4.5	33.3	75.6	33.3	53.7	40.0
57.1	39.6	9.1	83.3	38.5	20.0	38.7	74.5
16.7	7.5	.0	.0	41.0	6.7	58.7	14.5
59.5	38.7	45.5	100.0	78.2	80.0	55.0	92.7

Q TASK TITLES

E 278 E3-2 DO YOU ADJUST RELAYS?
E 279 E3-3 DO YOU CLEAN RELAYS?
E 280 E3-4 DO YOU INSPECT RELAYS?
E 281 E3-5 DO YOU TROUBLESHOOT RELAYS?
E 282 E3-6 DO YOU MONITOR DIAS OUTPUT ON RELAYS?
E 283 E3-7 DO YOU REMOVE OR REPLACE RELAYS?
E 284 E3-8 DO YOU PERFORM TASKS ON CONTACTS OF RELAYS?
E 285 E3-9 DO YOU PERFORM TASKS ON CORES OF RELAYS?
E 286 E3-10 DO YOU PERFORM TASKS ON COILS OF RELAYS?
E 287 E3-11 DO YOU PERFORM TASKS ON ARMATURES OF RELAYS?
E 288 E3-12 DO YOU PERFORM TASKS ON SPINGS OF RELAYS?
E 289 E3-13 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS?
E 290 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS?
E 291 E3-15 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS?
E 292 E3-16 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS?
E 293 E3-17 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS?
E 294 E3-18 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
26.2	22.6	4.5	66.7	76.9	66.7	47.5	78.2
45.2	31.1	4.5	83.3	76.9	73.3	58.7	89.1
52.4	34.9	18.2	100.0	75.6	73.3	60.0	96.4
52.4	33.0	45.5	100.0	76.9	66.7	61.2	94.5
14.3	14.2	9.1	50.0	26.9	20.0	12.5	27.3
54.8	37.7	9.1	83.3	71.8	73.3	48.7	94.5
50.0	28.3	13.6	100.0	76.9	73.3	52.5	92.7
7.1	16.0	4.5	16.7	56.4	33.3	10.0	52.7
19.0	17.9	4.5	16.7	65.4	33.3	11.2	72.7
33.7	31.1	4.5	50.0	75.6	53.3	26.2	63.6
31.0	28.3	4.5	50.0	78.2	46.7	38.7	83.6
54.8	33.0	40.9	100.0	59.0	60.0	48.7	94.5
54.8	33.0	40.9	100.0	59.0	60.0	48.7	94.5
52.4	28.3	36.4	100.0	55.1	53.3	45.0	94.5
52.4	26.4	36.4	100.0	53.8	53.3	42.5	94.5
57.1	28.3	36.4	83.3	67.9	40.0	45.0	94.5
50.0	37.7	9.1	100.0	70.5	53.3	36.2	87.3

F MICROPHONES AND SENSING DEVICES (F1), SPEAKERS (F2),
OSCILLOSCOPES (F3)

Q TASK TITLES

F 295 F1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES OR OTHER SENSING DEVICES SUCH AS TRANSDUCERS? IF NO, GO TO ITEM F2-1; IF YES, CONTINUE.

F 296 F1-2 DO YOU INSPECT MICROPHONES?

F 297 F1-3 DO YOU CLEAN MICROPHONES?

F 298 F1-4 DO YOU OPERATE MICROPHONES?

F 299 F1-5 DO YOU TROUBLESHOOT MICROPHONES WIRE CONNECTIONS?

F 300 F1-6 DO YOU TROUBLESHOOT MICROPHONE COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

F 301 F1-7 DO YOU REMOVE AND REPLACE COMPLETE MICROPHONES?

F 302 F1-8 DO YOU REMOVE OR REPLACE MICROPHONE COMPONENT PARTS?

F 303 F1-9 DO YOU PERFORM TASKS ON CARBON MICROPHONES?

F 304 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES?

F 305 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES?

F 306 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES?

F 307 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES?

F 308 F1-14 DO YOU PERFORM TASKS ON TRANSDUCERS?

F 309 F2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS? IF NO, GO TO ITEM F3-1; IF YES, CONTINUE.

F 310 F2-2 DO YOU INSPECT SPEAKERS?

F 311 F2-3 DO YOU CLEAN SPEAKERS?

F 312 F2-4 DO YOU OPERATE SPEAKERS?

F 313 F2-5 DO YOU TROUBLESHOOT SPEAKER WIRE CONNECTIONS?

F 314 F2-6 DO YOU TROUBLESHOOT SPEAKER COMPONENT PARTS OTHER THAN WIRE CONNECTIONS?

F 315 F2-7 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS?

F 316 F2-8 DO YOU REMOVE OR REPLACE SPEAKER PARTS?

F 317 F2-9 DO YOU PERFORM ANY TASKS ON CONE SPEAKER PARTS?

F 318 F2-10 DO YOU PERFORM ANY TASKS ON SPIDER SPEAKER PARTS?

F 319 F2-11 DO YOU PERFORM ANY TASKS ON FIELD COIL SPEAKER PARTS?

706 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	362 (M)	918
71 (M)	72 (M)	70F (M)	72F (M)	71 (M)	73 (M)	74 (M)	74 (M)	73 (M)
7.1	5.7	45.5	33.3	19.2	66.7	11.2	61.8	
2.4	3.8	18.2	.0	12.8	66.7	6.3	38.2	
.0	1.9	13.6	.0	11.5	40.0	3.7	30.9	
4.8	1.9	45.5	.0	14.1	53.3	10.0	32.7	
2.4	2.8	4.5	.0	15.4	53.3	7.5	38.2	
.0	2.8	4.5	.0	9.0	26.7	1.2	32.7	
2.4	1.9	13.6	.0	16.7	53.3	8.7	40.0	
.0	2.8	.0	.0	9.0	26.7	2.5	29.1	
4.8	2.8	18.2	.0	14.1	60.0	10.0	23.6	
.0	2.8	4.5	.0	5.1	13.3	2.5	16.4	
2.4	1.9	.0	.0	5.1	.0	2.5	25.5	
4.8	1.9	18.2	.0	7.7	20.0	5.0	21.8	
.0	1.9	4.5	.0	2.6	.0	.0	3.6	
2.4	.0	9.1	33.3	5.1	6.7	2.5	63.6	
21.4	7.5	36.4	16.7	20.5	60.0	33.7	63.6	
21.4	4.7	18.2	16.7	16.7	53.3	32.5	65.5	
16.7	2.8	9.1	16.7	15.4	46.7	21.2	50.9	
21.4	3.8	45.5	16.7	17.9	40.0	28.7	58.2	
16.7	3.8	13.6	16.7	17.9	53.3	32.5	67.3	
4.8	1.9	13.6	.0	11.5	40.0	13.7	50.9	
19.0	3.8	.0	16.7	16.7	46.7	32.5	67.3	
2.4	.9	.0	.0	7.7	33.3	7.5	27.3	
.0	.9	.0	.0	2.6	.0	2.5	5.5	
.0	.0	.0	.0	2.6	.0	1.2	5.5	
.0	.9	.0	.0	3.8	6.7	2.5	14.5	

EPI INVENTORY DATA FOR 7-SKILL LEVELS

F 320 F2-12 DO YOU PERFORM ANY TASKS ON VOICE COIL SPEAKER PARTS?

F 321 F2-13 DO YOU PERFORM ANY TASKS ON PERMANENT MAGNET SPEAKER PARTS?

F 322 F2-14 DO YOU PERFORM ANY TASKS ON ELECTROMAGNET SPEAKER PARTS?

F 323 F2-15 DO YOU PERFORM ANY TASKS ON SOFT IRON CORE SPEAKER PARTS?

F 324 F3-1 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G1-1; IF YES, CONTINUE.

F 325 F3-2 DO YOU PERFORM OPERATIONAL CHECKS USING OSCILLOSCOPES?

F 326 F3-3 DO YOU PERFORM ALIGNMENTS OR ADJUSTMENTS USING OSCILLOSCOPES?

F 327 F3-4 DO YOU TROUBLESHOOT ELECTRONIC CIRCUITS USING OSCILLOSCOPES?

F 328 F3-5 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCIES?

F 329 F3-6 DO YOU USE OSCILLOSCOPES TO MEASURE TIME?

F 330 F3-7 DO YOU USE OSCILLOSCOPES TO OBSERVE LISSAJOUS PATTERNS?

F 331 F3-8 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES.

F 332 F3-9 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS?

F 333 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGES?

F 334 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGES?

F 335 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS?

F 336 F3-13 DO YOU USE OSCILLOSCOPES TO OBSERVE DATA PATTERNS?

F 337 F3-14 DO YOU USE OSCILLOSCOPES TO MEASURE RIPPLE VOLTAGES?

F 338 F3-15 DO YOU USE OSCILLOSCOPES TO MEASURE PHASE JITTERS?

O TSV

TITLES

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306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
.0	.9	.0	.0	3.8	6.7	2.5	10.9
.0	1.9	.0	.0	3.8	13.3	2.5	12.7
.0	1.9	.0	.0	3.8	13.3	2.5	10.9
.0	.9	.0	.0	2.6	.0	2.5	7.3
81.0	64.2	.0	100.0	41.0	66.7	5.3	94.5
71.4	56.6	.0	100.0	34.6	66.7	3.7	92.7
64.3	56.6	.0	100.0	33.3	66.7	5.0	92.7
69.0	58.5	.0	66.7	34.6	66.7	3.7	94.5
42.9	35.8	.0	100.0	30.8	60.0	3.7	92.7
52.4	32.1	.0	83.3	19.2	60.0	1.2	90.9
52.4	10.4	.0	50.0	2.6	.0	.0	32.7
69.0	34.0	.0	66.7	28.2	13.3	1.2	90.9
23.8	17.9	.0	66.7	12.8	6.7	.0	58.2
69.0	54.7	.0	100.0	29.5	60.0	3.7	94.5
71.4	60.4	.0	100.0	32.1	53.3	3.7	94.5
42.9	38.7	.0	100.0	17.9	40.0	2.5	87.3
73.8	55.7	.0	66.7	24.4	13.3	1.2	60.0
73.8	37.7	.0	100.0	20.5	46.7	1.2	80.0
14.3	9.4	.0	50.0	14.1	.0	1.2	38.2

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O TSM TITLES

F 339 F3-16 DO YOU USE OSCILLOSCOPES TO DISPLAY SWEEP GENERATOR PATTERNS?
F 340 F3-17 DO YOU USE OSCILLOSCOPES TO RESERVE PHASE RELATIONSHIPS?
F 341 F3-18 DO YOU USE OSCILLOSCOPES TO OBSERVE SAMPLING DISPLAYS?

G SEMICONDUCTOR DIODES (G1), TRANSISTORS (G2), TRANSISTOR AMPLIFIERS (G3)

G 342 G1-1 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB? IF NO, GO TO ITEM G2-1; IF YES, CONTINUE.
G 343 G1-2 DO YOU INSPECT DIODES?
G 344 G1-3 DO YOU CHECK DIODES?
G 345 G1-4 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES?
G 346 G1-5 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE?
G 347 G1-6 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES?
G 348 G1-7 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES?
G 349 G1-8 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE?
G 350 G1-9 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF LOADING ON CURRENT FLOW?

306 71 (M)	306 72 (M)	316 73F (M)	316 72F (M)	362 71 (M)	362 73 (M)	262 74 (M)	918 70 (M)
26.2	33.0	.0	50.0	11.5	26.7	.0	70.9
50.0	29.2	.0	66.7	17.9	26.7	1.2	83.6
35.7	28.3	.0	66.7	17.9	20.0	.0	67.3
73.8	54.7	9.1	100.0	52.6	66.7	10.0	96.4
64.3	49.1	4.5	100.0	46.2	66.7	7.5	96.4
64.3	50.9	4.5	100.0	46.2	66.7	8.7	89.1
4.8	4.7	4.5	16.7	2.6	6.7	1.2	21.8
9.5	12.3	.0	.0	7.7	6.7	3.7	34.5
9.5	10.4	.0	33.3	7.7	6.7	3.7	34.5
52.4	29.2	.0	33.3	28.2	13.3	5.0	76.4
69.0	47.2	.0	50.0	43.6	53.3	10.0	94.5
4.8	8.5	.0	16.7	5.1	.0	1.2	25.5

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D ISK TITLES

G 351 G1-12 DO YOU MEASURE FORWARD BIAS RESISTANCE?
G 352 G1-11 DO YOU MEASURE REVERSE BIAS RESISTANCE?
G 353 G1-12 DO YOU READ DIODE COLOR CODING?
G 354 G1-13 DO YOU READ DIODE NUMBERING SYSTEM, SUCH AS IN 538?
G 355 G1-14 DO YOU USE THE SYMBOL ON DIODE WHICH INDICATES THE CATHODE END?
G 356 G1-15 DO YOU DETERMINE DIRECTION OF CURRENT THROUGH A DIODE?
G 357 G1-16 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON?
G 358 G1-17 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OR RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)?
G 359 G1-18 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)?
G 360 G1-19 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS?
G 361 G1-20 DO YOU NEED AN UNDERSTANDING OF VALENCE BAND IN SEMICONDUCTOR MATERIALS?
G 362 G1-21 DO YOU NEED AN UNDERSTANDING OF FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS?
G 363 G1-22 DO YOU NEED AN UNDERSTANDING OF CONDUCTION BAND IN SEMICONDUCTOR MATERIALS?
G 364 G1-23 DO YOU NEED AN UNDERSTANDING OF COVALENT BONDING IN SEMICONDUCTOR MATERIALS?
G 365 G1-24 DO YOU NEED AN UNDERSTANDING OF ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
52.4	32.1	.0	100.0	16.7	33.3	2.5	76.4
50.0	31.1	.0	100.0	15.4	33.3	2.5	76.4
33.3	19.8	.0	33.3	14.1	13.3	3.7	29.1
59.5	40.6	.0	66.7	28.2	46.7	7.5	94.5
73.8	50.9	4.5	83.3	42.3	53.3	7.5	96.4
69.0	51.9	4.5	83.3	44.9	60.0	10.0	90.9
14.3	10.4	.0	50.0	5.1	.0	2.5	58.2
28.6	17.0	.0	16.7	11.5	.0	.0	61.8
16.7	16.0	.0	16.7	6.4	.0	1.2	45.5
64.3	38.7	4.5	50.0	24.4	20.0	10.0	90.9
7.1	13.2	.0	.0	7.7	6.7	.0	32.7
4.8	9.4	.0	.0	5.1	6.7	.0	25.5
14.3	11.3	.0	.0	6.4	6.7	.0	34.5
7.1	10.4	.0	.0	7.7	6.7	.0	27.3
11.0	12.3	.0	.0	10.3	6.7	.0	30.9

D TSP	TITLES	306 (M)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
G 366	G1-25 DO YOU NEED AN UNDERSTANDING OF ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS?	31.0	20.8	.0	16.7	15.4	6.7	1.2	54.5
G 367	G1-26 DO YOU NEED AN UNDERSTANDING OF DONOR IMPURITY IN SEMICONDUCTORS?	9.5	10.4	.0	16.7	9.0	6.7	.0	30.9
G 368	G1-27 DO YOU NEED AN UNDERSTANDING OF ACCEPTOR IMPURITY IN SEMICONDUCTORS?	9.5	10.4	.0	16.7	7.7	6.7	.0	29.1
G 369	G1-28 DO YOU NEED AN UNDERSTANDING OF P-TYPE SEMICONDUCTOR MATERIAL?	38.1	23.6	.0	50.0	17.9	13.3	3.7	70.9
G 370	G1-29 DO YOU NEED AN UNDERSTANDING OF N-TYPE SEMICONDUCTOR MATERIAL?	38.1	23.6	.0	50.0	17.9	13.3	3.7	72.7
G 371	G1-30 DO YOU NEED AN UNDERSTANDING OF MAJORITY CARRIERS IN SEMICONDUCTORS?	9.5	11.3	.0	16.7	10.3	6.7	.0	38.2
G 372	G1-31 DO YOU NEED AN UNDERSTANDING OF MINORITY CARRIERS IN SEMICONDUCTORS?	9.5	11.3	.0	16.7	10.3	6.7	.0	36.4
G 373	G1-32 DO YOU NEED AN UNDERSTANDING OF JUNCTION RECOMBINATION IN SEMICONDUCTORS?	9.5	12.3	.0	16.7	9.0	6.7	1.2	36.4
G 374	G1-33 DO YOU NEED AN UNDERSTANDING OF DEPLETION REGION IN SEMICONDUCTORS?	14.3	12.3	.0	16.7	7.7	6.7	2.5	47.3
G 375	G1-34 DO YOU NEED AN UNDERSTANDING OF RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL?	14.3	10.4	.0	.0	6.4	6.7	.0	36.4
G 376	G1-35 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES?	54.8	17.9	.0	33.3	11.5	26.7	2.5	67.3
G 377	G1-36 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS?	11.9	6.6	.0	16.7	3.8	.0	.0	20.0
G 378	G1-37 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION?	38.1	25.5	.0	16.7	15.4	20.0	1.2	85.5
G 379	G1-38 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS?	11.9	12.3	.0	16.7	3.8	13.3	.0	70.9
G 380	G1-39 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS?	4.8	10.4	.0	16.7	3.8	13.3	.0	56.4

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98	98. TITLE
99	99. TITLE
100	100. TITLE

C 381 61-40 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIONE RATINGS?

G 382 51-41 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS?

C 383 G2-1 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB? IF
NO, GO TO ITEM G3-1; IF YES, CONTINUE.

5 784 62-2 UO YOU INSPECT TRANSISTORS?

DO YOU CHECK TRANSISTORS?

G 386 G2-4 DO YOU NEED AN UNDERSTANDING OF EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS?

G 387 G2-5 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND RESISTANCE MEASUREMENTS?

G 388 G2-6 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS?

G 369 G2-7 DO YOU USE OR REFER TO HOW RIASING AFFECTS THE PHYSICAL PARRIER WIDTH OF THE EMITTER - BASE JUNCTION?

G 390 G2-8 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION?

6 391 G2-9 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE
TRANSISTOR STRUCTURE (COLLECTOR, BASE, AND EMITTER)?

G 392 G2-10 DO YOU USE OR REFER TO LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR?

G 393 G2-11 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS?
G 394 G2-12 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS

Q1, A2, A3, ETC.?

C 395 G2-13 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION

INFORMATION?

306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
14.3	12.3	.0	16.7	5.1	13.3	.0	70.9
23.8	12.3	.0	33.3	6.4	20.0	1.2	83.6
73.8	60.4	9.1	83.3	42.3	66.7	18.8	96.4
66.7	55.7	4.5	100.0	33.3	66.7	15.0	96.4
66.7	56.6	4.5	100.0	38.5	60.0	12.5	89.1
64.3	54.7	.0	66.7	33.3	40.0	11.2	92.7
64.3	54.7	.0	100.0	29.5	33.3	10.0	87.3
64.3	53.8	.0	100.0	29.5	33.3	10.0	87.3
23.8	33.0	.0	50.0	16.7	13.3	5.0	63.6
23.8	31.1	.0	50.0	14.1	6.7	6.3	63.6
42.9	30.2	.0	83.3	20.5	40.0	7.5	61.8
14.3	20.8	.0	33.3	9.0	6.7	3.7	50.9
73.8	58.5	9.1	100.0	35.9	60.0	16.2	94.5
76.2	54.7	4.5	100.0	32.1	60.0	16.2	92.7
50.0	44.3	.0	50.0	17.9	33.3	7.5	94.5

D TSM TITLES

G 396 G2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT I(SUB B) IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT I(SUB E) USUALLY I(SUB B) BEING 2 TO 8 PERCENT OF I(SUB E)?

G 397 G2-15 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS?

G 398 G2-16 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (I SUB CBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES?

G 399 G2-17 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES?

G 400 G2-18 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS?

G 401 G2-19 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS?

G 402 G2-20 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS?

G 403 G2-21 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE BASE - EMITTER VOLTAGE INTO THE BASE COLLECTOR VOLTAGE (AV = VCB/VBE)?

G 404 G2-22 DO YOU USE OR REFER TO THE CURRENT GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT (AI = IC/IB)?

G 405 G2-23 DO YOU USE OR REFER TO THE POWER GAIN FOR SPECIFIC TRANSISTORS BY MULTIPLYING THE CURRENT GAIN TIMES THE VOLTAGE GAIN (AP = AI X AV)?

G 406 G2-24 DO YOU PERFORM TRANSISTOR MATCHING THROUGH THE USE OF CURVE TRACING?

G 407 G3-1 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM H1-1; IF YES, CONTINUE.

G 408 G3-2 DO YOU INSPECT TRANSISTOR AMPLIFIERS?

G 409 G3-3 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS?

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
33.3	27.4	.0	50.0	10.3	6.7	7.5	70.9
61.9	37.7	.0	66.7	16.7	33.3	10.0	83.6
19.0	15.1	.0	50.0	10.3	.0	3.7	38.2
9.5	11.3	.0	16.7	5.1	.0	1.2	29.1
9.5	9.4	.0	.0	5.1	.0	1.2	21.8
7.1	7.5	.0	.0	5.1	.0	1.2	20.0
7.1	6.6	.0	.0	5.1	.0	1.2	20.0
2.8	6.6	.0	16.7	3.8	.0	2.5	21.8
4.8	5.7	.0	16.7	2.6	.0	2.5	20.0
2.4	5.7	.0	16.7	1.3	.0	3.7	25.5
4.8	2.8	.0	.0	1.3	.0	.0	12.7
47.6	23.6	4.5	66.7	29.5	53.3	11.2	87.3
47.6	17.9	4.5	66.7	20.5	60.0	8.7	85.5
31.0	8.5	.0	50.0	21.8	53.3	6.3	81.8

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E TSK TITLES

3 410	G3-4	DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL?	306	306	316	316	362	362	362	918
3 411	G3-5	DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS?	71	72	70F	72F	71	73	74	70
3 412	G3-6	DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
3 413	G3-7	DO YOU REMOVE OR REPLACE AMPLIFIER CIRCUIT COMPONENTS?	50.0	17.9	4.5	66.7	16.7	60.0	3.7	87.3
3 414	G3-8	DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR CURRENT RESULTS FROM A CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	50.0	17.0	4.5	66.7	14.1	46.7	2.5	85.5
3 415	G3-9	DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO SPECIFIC CHANGE IN BASE CURRENT CONCERNING TRANSISTOR AMPLIFIERS?	38.1	13.2	.0	50.0	23.1	60.0	10.0	61.8
3 416	G3-10	DO YOU USE OR REFER TO THE CHANGE IN COLLECTOR VOLTAGE RESULTS FROM A CHANGE IN BASE CURRENT?	45.2	18.9	.0	33.3	10.3	40.0	6.3	83.6
3 417	G3-11	DO YOU USE OR REFER TO THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	40.5	13.2	.0	33.3	5.1	6.7	5.0	58.2
3 418	G3-12	DO YOU USE OR REFER TO THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL CONCERNING TRANSISTOR AMPLIFIERS?	4.8	4.7	.0	16.7	1.3	6.7	2.5	29.1
3 419	G3-13	DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)?	38.1	14.2	.0	50.0	3.8	6.7	3.7	60.0
3 420	G3-14	DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR?	35.7	14.2	.0	50.0	6.4	13.3	3.7	60.0
3 421	G3-15	DO YOU MEASURE VOLTAGE GAIN CONCERNING TRANSISTOR AMPLIFIERS?	9.5	7.5	.0	16.7	2.6	6.7	2.5	32.7
3 422	G3-16	DO YOU MEASURE CURRENT GAIN CONCERNING TRANSISTOR AMPLIFIERS?	2.4	6.6	.0	16.7	1.3	6.7	.0	9.1
3 423	G3-17	DO YOU MEASURE POWER GAIN CONCERNING TRANSISTOR AMPLIFIERS?	26.2	8.5	4.5	16.7	2.6	.0	1.2	38.2
			38.1	15.1	.0	33.3	15.4	60.0	3.7	69.1
			28.6	13.2	.0	.0	12.8	20.0	3.7	60.0
			23.8	10.4	.0	.0	12.8	26.7	5.0	50.9

C TSK	TITLE'S	306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
G 424	G3-19 DO YOU USE OR REFER TO THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS BY DIVIDING THE CHANGE IN BASE - EMITTER VOLTAGE INTO THE CHANGE OF THE BASE COLLECTOR VOLTAGE?	7.1	7.5	.0	.0	6.4	.0	.0	32.7
G 425	G3-19 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION?	28.6	12.3	.0	16.7	7.7	6.7	.0	36.4
G 426	G3-20 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION?	26.2	11.3	.0	16.7	6.4	.0	.0	38.2
G 427	G3-21 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION?	26.2	9.4	.0	16.7	5.1	.0	.0	32.7
G 428	G3-22 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION?	26.2	12.3	.0	16.7	6.4	.0	1.2	40.0
G 429	G3-23 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION?	23.8	13.2	.0	16.7	6.4	.0	1.2	40.0
G 430	G3-24 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS, WHILE TROUBLESHOOTING THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION?	11.9	11.3	.0	16.7	3.8	.0	.0	34.5
G 431	G3-25 DO YOU IDENTIFY OR TROUBLESHOOT AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS?	26.2	7.5	.0	16.7	9.0	46.7	1.2	56.4
G 432	G3-26 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS?	16.7	6.6	.0	16.7	7.7	40.0	1.2	52.7
G 433	G3-27 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS?	14.3	7.5	.0	16.7	9.0	13.3	.0	49.1
G 434	G3-28 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS?	14.3	5.7	.0	16.7	5.1	6.7	.0	30.9

EPI INVENTORY DATA FOR 7-SMILL LEVELS

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OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (ATC) RANDOLPH AFB TX

O TASK TITLES

G 435	G3-29 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS?	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
G 436	G3-30 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	9.5	11.3	.0	33.3	10.3	13.3	.0	34.5
G 437	G3-31 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?	11.9	6.6	.0	.0	2.6	.0	.0	41.8
G 438	G3-32 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS?	35.7	12.3	.0	50.0	11.5	26.7	1.2	76.4
G 439	G3-33 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS?	19.0	6.6	4.5	16.7	3.8	.0	.0	41.8
G 440	G3-34 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS?	16.7	3.8	4.5	16.7	3.8	6.7	.0	50.9
G 441	G3-35 DO YOU TROUBLESHOOT OR REPAIR VOLTAGE MULTIPLIERS (COUPLERS/AMPLIFIERS)?	26.2	9.4	.0	16.7	5.1	6.7	.0	60.0
G 442	G3-36 DO YOU TROUBLESHOOT OR REPAIR RF AMPLIFIERS?	26.2	12.3	.0	66.7	7.7	20.0	1.2	74.5
G 443	G3-37 DO YOU TROUBLESHOOT OR REPAIR WIDEBAND AMPLIFIERS (VIDEO AMPS)?	14.3	4.7	4.5	33.3	6.4	6.7	.0	60.0
G 444	G3-38 DO YOU TROUBLESHOOT OR REPAIR AUDIO AMPLIFIERS?	9.5	4.7	4.5	.0	.0	.0	.0	50.9
G 445	G3-39 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL OR POWER AMPLIFIERS?	16.7	6.6	4.5	23.3	16.7	60.0	5.0	67.3
G 446	G3-40 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?	38.1	11.3	4.5	50.0	11.5	33.3	.0	76.4
G 447	G3-41 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY AMPLIFIERS?	11.9	4.7	.0	.0	1.3	.0	.0	38.2
G 448	G3-42 DO YOU TROUBLESHOOT OR REPAIR IF AMPLIFIERS?	16.7	3.8	.0	.0	1.3	.0	.0	41.8
G 449	G3-43 DO YOU TROUBLESHOOT OR REPAIR DIFFERENTIATING AMPLIFIERS (DIFF AMPS)?	11.9	2.8	.0	16.7	3.8	.0	.0	56.4
G 450	G3-44 DO YOU TROUBLESHOOT OR REPAIR OPERATIONAL AMPLIFIERS (OP AMPS)?	28.6	3.8	.0	16.7	1.3	6.7	.0	78.2
G 451	G3-45 DO YOU TROUBLESHOOT OR REPAIR INTEGRATING AMPLIFIERS?	28.6	6.6	4.5	16.7	2.6	13.3	.0	83.6
G 452	G3-46 DO YOU TROUBLESHOOT OR REPAIR SUMMING AMPLIFIERS?	19.0	7.5	4.5	33.3	3.8	6.7	1.2	69.1
		7.1	3.8	.0	.0	.0	.0	.0	49.1

D TSK TITLES

306 306 316 316 362 362 362 918
71 72 70F 72F 73 74 70
(M) (M) (M) (M) (M) (M)

H SOLID-STATE SPECIAL PURPOSE DEVICES (H1), POWER SUPPLIES (H2), OSCILLATORS (H3)

- H 453 H1-1 DO YOU USE OR REFER TO VARACTORS/VARICAP COMPONENTS?
- H 454 H1-2 DO YOU USE OR REFER TO TUNNEL DIODE COMPONENTS?
- H 455 H1-3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTOR COMPONENTS?
- H 456 H1-4 DO YOU USE OR REFER TO UNIUNJUNCTION TRANSISTOR COMPONENTS?
- H 457 H1-5 DO YOU USE OR REFER TO ZENER DIODE COMPONENTS?
- H 458 H1-6 DO YOU USE OR REFER TO INTEGRATED CIRCUIT COMPONENTS?
- H 459 H1-7 DO YOU USE OR REFER TO PIN DIODE COMPONENTS?
- H 460 H1-8 DO YOU USE OR REFER TO LED'S/VLCD'S COMPONENTS?
- H 461 H1-9 DO YOU USE OR REFER TO FANTAIL TRANSISTOR COMPONENTS?
- H 462 H1-10 DO YOU USE OR REFER TO SILICON CONTROL RECTIFIER (SCR) COMPONENTS?
- H 463 H1-11 DO YOU USE OR REFER TO TRIAC COMPONENTS?
- H 464 H1-12 DO YOU USE OR REFER TO PROGRAMMABLE UNIUNJUNCTION TRANSISTOR (PUT) COMPONENTS?
- H 465 H1-13 DO YOU USE OR REFER TO SILICON CONTROLLED SWITCH (SCS) COMPONENTS?
- H 466 H1-14 DO YOU USE OR REFER TO SILICON UNILATERAL SWITCH (SUS) COMPONENTS?
- H 467 H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.
- H 468 H2-2 DO YOU INSPECT POWER SUPPLIES?
- H 469 H2-3 DO YOU CLEAN POWER SUPPLIES?
- H 470 H2-4 DO YOU ALIGN OR ADJUST POWER SUPPLIES?
- H 471 H2-5 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL?
- H 472 H2-6 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS?
- H 473 H2-7 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES?
- H 474 H2-8 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS?
- H 475 H2-9 DO YOU INSPECT OR SERVICE COOLANT LEVELS?
- H 476 H2-10 DO YOU WORK WITH HALF-WAVE RECTIFIERS?
- H 477 H2-11 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS?
- H 478 H2-12 DO YOU WORK WITH BRIDGE RECTIFIERS?
- H 479 H2-13 DO YOU WORK WITH THREE-PHASE RECTIFIERS?
- H 480 H2-14 DO YOU USE OR REFER TO INPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
- H 481 H2-15 DO YOU USE OR REFER TO INPUT FREQUENCIES IN YOUR WORK WITH RECTIFIERS?
- H 482 H2-16 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
- H 483 H2-17 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGES IN YOUR WORK WITH RECTIFIERS?
- H 484 H2-18 DO YOU USE OR REFER TO RIPPLE AMPLITUDE IN YOUR WORK WITH RECTIFIERS?
- H 485 H2-19 DO YOU USE OR REFER TO RIPPLE FREQUENCIES IN YOUR WORK WITH RECTIFIERS?

19.0 14.2 .0 16.7 7.7 13.3 .0 60.0
40.5 15.1 .0 16.7 7.7 13.3 .0 72.7
42.9 29.2 .0 33.3 14.1 6.7 .0 92.7
50.0 35.8 .0 33.3 9.0 6.7 .0 96.4
73.8 65.1 9.1 100.0 26.9 60.0 16.8 98.2
71.4 63.2 9.1 100.0 26.9 40.0 25.0 94.5
14.3 14.2 9.1 .0 11.5 .0 1.2 41.8
71.4 53.8 27.3 100.0 30.8 6.7 17.5 96.4
11.0 7.5 4.5 .0 1.3 6.7 .0 36.4
76.2 32.1 9.1 100.0 17.9 13.3 3.7 98.2
24.6 30.2 4.5 33.3 5.1 .0 .0 98.2
9.5 4.7 .0 .0 2.6 .0 .0 89.1
16.7 11.3 .0 33.3 2.6 .0 2.5 80.0
4.8 4.7 .0 .0 1.3 .0 .0 81.8
76.2 66.0 68.2 100.0 61.5 80.0 63.7 94.5
66.7 62.3 40.9 100.0 53.8 66.7 62.5 94.5
61.9 52.8 9.1 83.2 50.0 60.0 47.5 74.5
69.0 50.0 50.0 83.3 52.6 66.7 13.7 92.7
66.7 53.8 40.9 66.7 47.4 53.3 45.0 94.5
66.7 52.8 40.9 66.7 38.5 53.3 31.3 92.7
52.4 55.7 .0 66.7 43.6 66.7 60.0 92.7
64.3 48.1 .0 66.7 37.2 46.7 28.7 92.7
4.8 6.6 13.6 16.7 6.4 .0 2.5 34.5
59.5 46.2 4.5 83.3 25.6 40.0 7.5 90.9
66.7 49.1 4.5 100.0 32.1 40.0 10.0 90.9
69.0 52.8 13.6 83.3 34.6 33.3 13.7 92.7
23.8 12.3 18.2 66.7 28.2 6.7 5.0 63.6
69.0 59.4 45.5 100.0 53.8 66.7 22.5 94.5
38.1 23.6 13.6 50.0 33.3 33.3 7.5 78.2
52.4 46.2 18.2 83.3 39.7 60.0 8.7 83.6
61.9 46.2 27.3 83.2 43.6 33.3 17.5 87.3
57.1 29.2 .0 50.0 15.4 60.0 2.5 78.2
35.7 17.9 .0 50.0 10.3 13.3 2.5 72.7

SPI INVENTORY DATA FOR 7-SKILL LEVELS

CYCLE

TITLE

306	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(4)	(4)	(M)	(M)	(M)	(M)
21.4	14.2	.0	50.0	10.3	13.3	3.7	63.6
45.2	40.6	.0	50.0	12.8	53.3	2.5	85.5
50.0	43.4	4.5	83.2	23.1	46.7	13.7	89.1
66.7	46.2	9.1	50.0	26.9	53.3	12.5	97.9
45.2	28.3	9.1	50.0	19.2	33.3	13.7	80.0
47.6	19.8	4.5	16.7	14.1	13.3	3.7	69.1
33.3	17.9	4.5	33.2	12.8	13.3	3.7	67.3
33.3	12.3	4.5	.0	6.4	13.3	6.3	67.3
45.2	11.3	4.5	.0	7.7	13.3	5.0	72.7
4.8	7.5	.0	.0	.0	.0	.0	16.4
14.3	12.3	4.5	16.7	19.2	6.7	3.7	45.5
69.0	46.2	13.6	66.7	29.5	46.7	10.0	89.1
61.9	19.8	.0	16.7	41.0	66.7	6.3	63.6
52.4	13.2	.0	.0	29.5	53.3	3.7	61.8
52.4	9.4	.0	16.7	26.9	46.7	3.7	63.6
54.8	10.4	.0	.0	24.4	40.0	1.2	58.2
40.5	10.4	.0	.0	7.7	13.3	.0	58.2
57.1	11.3	.0	.0	19.2	33.3	1.2	60.0
40.5	9.4	.0	.0	5.1	13.3	.0	60.0
31.0	11.3	.0	.0	3.6	26.7	1.2	60.0
35.7	9.4	.0	.0	6.4	13.3	1.2	54.5
33.3	9.4	.0	.0	10.3	20.0	1.2	41.8
42.9	10.4	.0	16.7	14.1	20.0	1.2	52.7
35.7	9.4	.0	.0	2.6	.0	1.2	56.4
28.6	8.5	.0	16.7	10.3	.0	1.2	49.1
35.7	9.4	.0	.0	5.1	6.7	.0	65.5
35.7	11.3	.0	16.7	5.1	13.3	1.2	67.6
50.0	13.2	.0	16.7	5.1	.0	1.2	61.0
14.3	6.6	.0	.0	2.6	.0	.0	38.2

M 486 H2-20 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE)

VOLTAGES IN YOUR WORK WITH RECTIFIERS?

M 487 H2-21 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS IN

YOUR WORK WITH RECTIFIERS?

M 488 H2-22 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGES IN

YOUR WORK WITH RECTIFIERS?

M 489 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE

FILTERS?

M 490 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE

FILTERS?

M 491 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE

INPUT LC-TYPE FILTERS?

M 492 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE

INPUT LC-TYPE FILTERS?

M 493 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE

FILTERS?

M 494 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE

FILTERS?

M 495 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF

FILTER WITH A DIFFERENT TYPE FILTER?

M 496 H2-30 DO YOU WORK WITH POWER SUPPLY REGULATOR CIRCUITS

OTHER THAN SOLID-STATE?

M 497 H2-31 DO YOU WORK WITH SOLID-STATE POWER SUPPLY REGULATOR

CIRCUITS?

M 498 H3-1 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB? IF

NO, GO TO ITEM 11-1; IF YES, CONTINUE.

M 499 H3-2 DO YOU INSPECT OSCILLATORS?

M 500 H3-3 DO YOU ALIGN OR ADJUST OSCILLATORS?

M 501 H3-4 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS?

M 502 H3-5 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS?

M 503 H3-6 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL?

M 504 H3-7 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS?

M 505 H3-8 DO YOU USE OR REFER TO FEEDBACK (REGENERATIVE OR

REGENERATIVE)?

M 506 H3-9 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES

(FDP)?

M 507 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY?

M 508 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY?

M 509 H3-12 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT (CRYSTAL

OSCILLATIONS)?

M 510 H3-13 DO YOU USE OR REFER TO HARMONIC DISTORTION?

M 511 H3-14 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN DC TANK

CIRCUITS?

M 512 H3-15 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN RC

NETWORKS?

M 513 H3-16 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN CRYSTALS?

M 514 H3-17 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN PHASE LOCK

LOOPS (PLL)?

TITLES

H 515 H3-18 DO YOU WORK WITH OSCILLATORS WHICH CONTAIN - DON'T
KNOW WHICH TYPE OF FDD?
H 516 H3-19 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL
OSCILLATORS?
H 517 H3-20 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL
OSCILLATORS?
H 518 H3-21 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS?
H 519 H3-22 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS?
H 520 H3-23 DO YOU WORK WITH VOLTAGE CONTROL SINUSOIDAL OSCILLATO
H 521 H3-24 DO YOU WORK WITH CRYSTAL SINUSOIDAL OSCILLATORS?
H 522 H3-25 DO YOU WORK WITH VOLTAGE CONTROL OSCILLATORS (VCO)
SINUSOIDAL OSCILLATORS?
H 523 H3-26 DO YOU WORK WITH WIEN BRIDGE OSCILLATORS SINUSOIDAL
OSCILLATORS?
H 524 H3-27 DO YOU WORK WITH - DON'T KNOW WHICH TYPE OF
SINUSOIDAL OSCILLATOR?
H 525 H3-28 DO YOU WORK WITH PULSE GENERATING CIRCUITS?
H 526 H3-29 DO YOU WORK WITH BLOCKING OSCILLATORS?
H 527 H3-30 DO YOU WORK WITH BURST GENERATORS?
H 528 H3-31 DO YOU WORK WITH BLOCKED OSCILLATORS?

I MULTIVIBRATORS (I1), LIMITERS AND CLAMPERS (I2), ELECTRON
TUBES (I3)

I 529 I1-1 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB?
IF NO, GO TO ITEM I2-1; IF YES, CONTINUE.
I 530 I1-2 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK
CIRCUIT FREQUENCY DETERMINING DEVICES (FDD)?
I 531 I1-3 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC
NETWORK FREQUENCY DETERMINING DEVICES (FDD)?
I 532 I1-4 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTAL
FREQUENCY DETERMINING DEVICES (FDD)?
I 533 I1-5 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN - DON'T
KNOW WHICH TYPE OF FDD?
I 534 I1-6 DO YOU WORK WITH ASTABLE (FREE RUNNING)
MULTIVIBRATORS?
I 535 I1-7 DO YOU WORK WITH MONOSTABLE (ONE SHOT) MULTIVIBRATORS?
I 536 I1-8 DO YOU WORK WITH BISTABLE (FLIP FLOP) MULTIVIBRATORS?
I 537 I1-9 DO YOU WORK WITH R-S FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?
I 538 I1-10 DO YOU WORK WITH J-K FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?
I 539 I1-11 DO YOU WORK WITH "D" FLIP-FLOP INTEGRATED CIRCUIT
REGULATORS?
I 540 I2-1 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT
JOB? IF NO, GO TO ITEM I3-1; IF YES, CONTINUE.
I 541 I2-2 DO YOU WORK WITH SERIES DIODE LIMITERS?

306 (M)	306 (M)	316 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	918 (M)
71 (M)	72 (M)	70F (M)	72F (M)	71 (M)	73 (M)	74 (M)	70 (M)	
7.1	3.8	.0	.0	19.2	20.0	1.2	18.2	
16.7	6.6	.0	16.7	1.3	13.3	.0	47.3	
21.4	6.6	.0	16.7	1.3	13.3	.0	45.5	
28.6	4.7	.0	16.7	1.3	.0	.0	34.5	
9.5	3.8	.0	.0	.0	.0	.0	25.5	
26.2	3.8	.0	16.7	1.3	.0	.0	45.5	
50.0	10.4	.0	16.7	2.6	.0	.0	54.5	
26.2	4.7	.0	16.7	2.6	.0	1.2	43.6	
7.1	8.5	.0	.0	2.6	6.7	.0	47.3	
16.7	9.4	.0	.0	25.6	20.0	3.7	20.0	
35.7	8.5	.0	16.7	12.8	13.3	.0	60.0	
16.7	2.8	.0	.0	1.3	.0	.0	47.3	
7.1	.9	.0	.0	.0	.0	.0	36.4	
7.1	1.9	.0	.0	.0	6.7	.0	30.9	
69.0	23.6	.0	.0	2.6	20.0	1.2	69.1	
23.8	12.3	.0	.0	2.6	20.0	.0	61.8	
42.9	17.0	.0	.0	2.6	20.0	.0	65.5	
28.6	15.1	.0	.0	2.6	6.7	.0	58.2	
11.9	6.6	.0	.0	1.3	6.7	1.2	16.4	
61.0	17.9	.0	.0	1.3	20.0	1.2	69.1	
69.0	19.8	.0	.0	1.3	13.3	1.2	70.9	
71.4	20.8	.0	.0	1.3	20.0	1.2	70.9	
28.6	8.5	.0	.0	.0	13.3	.0	52.7	
73.8	19.8	.0	.0	.0	6.7	.0	50.0	
33.3	5.7	.0	.0	1.3	.0	.0	41.8	
45.2	15.1	.0	.0	2.6	6.7	.0	61.8	
31.0	11.3	.0	.0	1.3	6.7	.0	54.5	

C TSK TITLE

I 542	I2-3	DO YOU WORK WITH SHUNT DIODE LIMITERS?	306	306	316	316	362	362	362	918		
I 543	I2-4	DO YOU WORK WITH LIMITERS WITH BIAS?	71	72	70F	72F	71	73	74	70	(M)	
I 544	I2-5	DO YOU WORK WITH DIODE LIMITERS?	306	306	316	316	362	362	362	918		
I 545	I2-6	DO YOU WORK WITH TRANSISTOR LIMITERS?	71	72	70F	72F	71	73	74	70	(M)	
I 546	I2-7	DO YOU WORK WITH TRIODE LIMITERS?	306	306	316	316	362	362	362	918		
I 547	I2-8	DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS?	71	72	70F	72F	71	73	74	70	(M)	
I 548	I2-9	DO YOU WORK WITH BIAS DIODE CLAMPING CIRCUITS?	306	306	316	316	362	362	362	918		
I 549	I2-10	DO YOU WORK WITH DC PESTOPERS?	71	72	70F	72F	71	73	74	70	(M)	
I 550	I3-1	IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS BASIC ELECTRON TUBES (FOR PURPOSES OF THIS QUESTION DO NOT CONSIDER HIGH-FREQUENCY DEVICES SUCH AS KLYSTRONS, TRAVELING WAVE TUBES, BACKWARD WAVE OSCILLATORS, OR MAGNETRONS AS ELECTRON TUBES)? IF NO, GO TO ITEM J1-1; IF YES, CONTINUE.	306	306	316	316	362	362	362	918		
I 551	I3-2	DO YOU CHECK THE CONDITION OF ELECTRON TUBES?	7.1	11.3	.0	66.7	15.4	.0	.0	45.5		
I 552	I3-3	DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES?	7.1	6.6	.0	33.3	11.5	.0	.0	32.7		
I 553	I3-4	DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES?	7.1	8.5	.0	66.7	7.7	6.7	.0	43.6		
I 554	I3-5	DO YOU USE SCOPES TO CHECK ELECTRON TUBES?	7.1	8.5	.0	16.7	1.3	6.7	.0	41.8		
I 555	I3-6	DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES?	7.1	10.4	.0	50.0	9.0	.0	.0	40.0		
I 556	I3-7	DO YOU USE OR REFER TO CUTOFF?	7.1	7.5	.0	33.3	1.3	.0	.0	32.7		
I 557	I3-8	DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING?	7.1	1.9	.0	.0	.0	.0	.0	18.2		
I 558	I3-9	DO YOU USE OR REFER TO PEAK CURRENT RATING?	7.1	3.8	.0	.0	.0	.0	.0	21.8		
I 559	I3-10	DO YOU USE OR REFER TO TRANSIT TIME?	2.4	4.7	.0	.0	.0	.0	.0	14.5		
I 560	I3-11	DO YOU USE OR REFER TO PLATE DISSIPATION RATING?	2.4	3.8	.0	.0	.0	.0	.0	18.2		
I 561	I3-12	DO YOU USE OR REFER TO SATURATION?	7.1	8.5	.0	16.7	1.3	6.7	.0	36.4		
I 562	I3-13	DO YOU USE OR REFER TO DC PLATE RESISTANCE?	4.8	4.7	.0	.0	2.6	.0	.0	29.1		
I 563	I3-14	DO YOU USE OR REFER TO PLATE VOLTAGE?	7.1	11.3	4.5	33.3	5.1	.0	.0	45.5		
I 564	I3-15	DO YOU USE OR REFER TO PLATE CURRENT?	7.1	8.5	.0	16.7	3.8	.0	.0	38.2		
I 565	I3-16	DO YOU USE OR REFER TO GRID VOLTAGE?	7.1	10.4	.0	66.7	5.1	.0	.0	43.6		
I 566	I3-17	DO YOU USE OR REFER TO GRID CURRENT?	7.1	9.4	.0	33.3	3.8	.0	.0	36.4		
I 567	I3-18	DO YOU USE OR REFER TO CATHODE VOLTAGE?	7.1	10.4	.0	66.7	5.1	.0	.0	45.5		
I 568	I3-19	DO YOU USE OR REFER TO CATHODE CURRENT?	7.1	8.5	.0	33.3	3.8	.0	.0	34.5		
I 569	I3-20	DO YOU USE OR REFER TO FILAMENT VOLTAGE?	7.1	11.3	.0	50.0	5.1	.0	.0	47.3		
I 570	I3-21	DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODE IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)?	4.8	5.7	.0	.0	.0	.0	.0	18.2		
I 571	I3-22	DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC.) AMPLIFICATION FACTORS?	9.5	7.5	.0	16.7	3.8	.0	.0	20.0		
I 572	I3-23	DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN PHOS)?	9.5	1.9	.0	.0	2.6	.0	1.2	12.7		
I 573	I3-24	DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE?	11.9	.9	.0	.0	2.6	.0	.0	20.0		
I 574	I3-25	DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE?	11.9	1.9	.0	.0	3.8	.0	.0	16.4		
I 575	I3-26	DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES?	11.9	.9	.0	.0	2.6	.0	.0	9.1		
I 576	I3-27	DO YOU USE OR REFER TO PLATE VOLTAGE FOR A SPECIFIED BIAS?	2.4	3.8	.0	33.3	1.3	.0	.0	25.5		

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O TSK	TITLES	306 (M)	306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
I 577	I3-29 DO YOU USE OR REFER TO PLATE CURRENT FOR A SPECIFIED BIAS?	4.8	3.8	.0	16.7	1.3	.0	.0	23.6
I 578	I3-29 DO YOU USE OR REFER TO BIAS REQUIRED FOR CUTOFF?	4.8	4.7	.0	33.3	2.6	.0	.0	34.5
I 579	I3-30 DO YOU USE OR REFER TO BIAS REQUIRED FOR SATURATION?	2.4	3.8	.0	33.3	2.6	.0	.0	34.5
I 580	I3-31 DO YOU USE OR REFER TO GAIN?	4.8	5.7	.0	50.0	1.3	.0	.0	34.5
I 581	I3-32 DO YOU USE OR REFER TO EFFICIENCY?	2.4	3.8	.0	16.7	2.6	.0	.0	16.4
I 582	I3-33 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.8	3.8	.0	50.0	3.8	.0	.0	36.4
I 583	I3-34 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.8	2.8	.0	33.3	1.3	.0	.0	40.0
I 584	I3-35 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN?	4.8	.9	.0	.0	.0	.0	.0	5.5
I 585	I3-36 DO YOU USE OR REFER TO TUBE SOCKET NOTATION?	7.1	9.4	.0	66.7	9.0	.0	.0	49.1
I 586	I3-37 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS?	7.1	10.4	.0	66.7	10.3	.0	.0	49.1
I 587	I3-38 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS?	7.1	7.5	.0	16.7	9.0	.0	.0	45.5
I 588	I3-39 DO YOU USE OR REFER TO ELECTRON TUBE DIODES?	4.8	6.6	.0	16.7	2.6	.0	.0	43.6

J ELECTRON TUBE AMPLIFIERS AND CIRCUITS (J1), SPECIAL PURPOSE
ELECTRON TUBES (J2), HETERODYNING AND MODULATION -
DEMULATION (MODEMS) (J3)

J 589 J1-1 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS
IN YOUR PRESENT JOB? IF NO, GO TO ITEM J2-1; IF YES,
CONTINUE.

J 590 J1-2 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON
TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER
CIRCUITS?

J 591 J1-3 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS?
J 592 J1-4 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS?
J 593 J1-5 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED
AMPLIFIERS?

J 594 J1-6 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED
AMPLIFIERS?

J 595 J1-7 DO YOU TROUBLESHOOT OR REPAIR - DON'T KNOW WHICH TYPE
OF AMPLIFIER?

J 596 J2-1 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD
CATHODE)?

J 597 J2-2 DO YOU WORK WITH CATHODE-RAY TUBES (CRT)?

J 598 J2-3 DO YOU WORK WITH BEAM POWER TUBES?

J 599 J2-4 DO YOU WORK WITH THYRATONS?

J 600 J2-5 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF
ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)?

J 601 J2-6 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF
ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES
(CRT)?

D TASK

TITLES

J 602 J2-7 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)?

J 603 J2-8 DO YOU USE OR REFER TO PHOSPHOR SCREENS CONCERNING CRT'S?

J 604 J2-9 DO YOU USE OR REFER TO AQUADAG COATINGS CONCERNING CRT'S?

J 605 J2-10 DO YOU USE OR REFER TO ELECTRON OPTICS CONCERNING CRT'S?

J 606 J2-11 DO YOU USE OR REFER TO PERSISTENCE CONCERNING CRT'S?

J 607 J2-12 DO YOU USE OR REFER TO DECAY TIMES CONCERNING CRT'S?

J 608 J2-13 DO YOU USE OR REFER TO FLOURESCENCE CONCERNING CRT'S?

J 609 J2-14 DO YOU USE OR REFER TO PHOSPHORESCENCE CONCERNING CRT'S?

J 610 J2-15 DO YOU USE OR REFER TO SHADOW MASK CONCERNING CRT'S?

J 611 J3-1 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K1-1; IF YES, CONTINUE.

J 612 J3-2 DO YOU PERFORM TASKS ON FREQUENCY CONVERTER SYSTEMS STAGES?

J 613 J3-3 DO YOU PERFORM TASKS ON FREQUENCY MIXER SYSTEMS STAGES?

J 614 J3-4 DO YOU PERFORM TASKS ON MODEN SYSTEMS STAGES?

J 615 J3-5 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS?

J 616 J3-6 DO YOU PERFORM TASKS ON REACTANCE MODULATOR SYSTEM STAGES?

J 617 J3-7 DO YOU PERFORM TASKS ON MODULATED OSCILLATOR SYSTEM STAGES?

K AM SYSTEMS (K1), FM SYSTEMS (K2), NUMBERING SYSTEMS (K3)

K 618 K1-1 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K2-1; IF YES, CONTINUE.

K 619 K1-2 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS?

K 620 K1-3 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS?

K 621 K1-4 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS?

K 622 K1-5 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS?

K 623 K1-6 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS?

K 624 K1-7 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS?

K 625 K1-8 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS?

K 626 K1-9 DO YOU PERFORM TASKS ON RF OSCILLATORS/SYNTHESIZERS?

K 627 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS?

K 628 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?

K 629 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?

306 71 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
16.7	14.2	.0	.0	3.8	.0	1.2	69.1
16.7	17.0	.0	.0	2.6	.0	.0	72.7
7.1	3.8	.0	.0	2.6	.0	.0	32.7
7.1	1.9	.0	.0	1.3	.0	.0	43.6
9.5	3.8	.0	.0	2.6	.0	.0	36.4
11.9	2.8	.0	.0	2.6	.0	.0	38.2
9.5	5.7	.0	.0	2.6	.0	.0	60.0
7.1	8.5	.0	.0	3.8	.0	.0	56.4
7.1	1.9	.0	.0	1.3	.0	.0	27.3
61.9	25.5	9.1	.0	17.9	13.3	12.5	18.7
23.8	8.5	9.1	.0	5.1	.0	.0	12.7
14.3	5.7	9.1	.0	3.8	.0	.0	12.7
59.5	15.1	4.5	.0	16.7	.0	7.5	7.3
14.3	1.9	.0	.0	1.3	.0	1.2	7.3
9.5	1.9	.0	.0	1.3	.0	1.2	7.3
35.7	3.8	.0	.0	3.8	.0	1.2	10.9
7.1	2.8	9.1	.0	2.6	6.7	1.2	9.1
2.4	.9	9.1	.0	2.6	6.7	.0	5.5
2.4	.9	4.5	.0	1.3	6.7	.0	5.5
2.4	.9	4.5	.0	2.6	6.7	.0	5.5
2.4	.9	4.5	.0	3.8	6.7	.0	5.5
2.4	.0	4.5	.0	2.6	.0	.0	5.5
2.4	.9	.0	.0	2.6	6.7	.0	5.5
2.4	.9	.0	.0	2.6	.0	.0	5.5
2.4	.0	.0	.0	1.3	.0	.0	5.5
2.4	.0	.0	.0	1.3	.0	.0	5.5
2.4	.9	.0	.0	1.3	6.7	.0	5.5
2.4	.0	.0	.0	1.3	6.7	.0	5.5

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C	TASK	TITLES	(H)	(M)	(S)	(M)	(H)	(M)	(S)
K	630	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS?							
K	631	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	2.4	.0	.0	1.3	.0	.0	5.5
K	632	K1-15 DO YOU PERFORM TASKS ON DETECTORS?	2.4	.0	.0	1.3	.0	.0	5.5
K	633	K1-16 DO YOU PERFORM TASKS ON MIXER AMPLIFIERS?	2.4	.0	.0	1.3	.0	.0	5.5
K	634	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS?	2.4	.9	.0	2.6	.0	.0	5.5
K	635	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS?	2.4	1.9	.0	3.8	.0	1.2	5.5
K	636	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS?	2.4	1.9	.0	2.6	.0	1.2	5.5
K	637	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS?	2.4	.9	4.5	3.8	.0	1.2	5.5
K	638	K2-1 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM K3-1; IF YES, CONTINUE.	14.3	3.8	13.6	6.4	6.7	3.7	10.9
K	639	K2-2 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS?	7.1	1.9	13.6	2.6	.0	.0	5.5
K	640	K2-3 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS?	7.1	.9	4.5	.0	.0	.0	5.5
K	641	K2-4 DO YOU ALIGN TRANSMIT OR RECEIVE SYSTEMS?	9.5	.9	4.5	.0	1.3	.0	5.5
K	642	K2-5 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS?	9.5	.9	9.1	3.8	.0	.0	3.6
K	643	K2-6 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS?	9.5	.0	9.1	1.3	.0	.0	3.6
K	644	K2-7 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS?	4.8	.9	.0	1.3	.0	.0	3.6
K	645	K2-8 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS?	4.8	.0	.0	1.3	.0	.0	5.5
K	646	K2-9 DO YOU PERFORM LINK PERFORMANCE ASSESSMENTS?	2.4	.0	.0	1.3	.0	.0	3.6
K	647	K2-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS?	9.5	.0	4.5	.0	1.3	.0	3.6
K	648	K2-11 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS?	4.8	.0	4.5	.0	1.3	.0	3.6
K	649	K2-12 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)?	4.8	.0	4.5	.0	1.3	.0	3.6
K	650	K2-13 DO YOU PERFORM TASKS ON POWER AMPLIFIERS?	4.8	.0	4.5	.0	1.3	.0	3.6
K	651	K2-14 DO YOU PERFORM TASKS ON PF AMPLIFIERS?	4.8	.0	4.5	.0	1.3	.0	3.6
K	652	K2-15 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS?	4.8	.0	4.5	.0	1.3	.0	3.6
K	653	K2-16 DO YOU PERFORM TASKS ON IF AMPLIFIERS?	2.4	.0	.0	1.3	.0	.0	3.6
K	654	K2-17 DO YOU PERFORM TASKS ON LIMITERS?	2.4	.0	.0	1.3	.0	.0	3.6
K	655	K2-18 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS?	9.5	.0	.0	1.3	.0	.0	3.6
K	656	K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS?	4.8	.9	.0	1.3	.0	.0	3.6
K	657	K2-20 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS?	4.8	.9	.0	1.3	.0	.0	3.6
K	658	K2-21 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSCIEVERS?	7.1	.0	.0	1.3	.0	.0	3.6
K	659	K2-22 DO YOU PLOT RECEIVE SIGNAL LEVEL CURVES (RSL)?	.0	.0	.0	1.3	.0	.0	3.6
K	660	K3-1 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS?	38.1	10.4	27.3	33.3	9.0	1.2	40.0
K	661	K3-2 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS?	45.2	16.0	22.7	33.3	14.1	.0	49.1
K	662	K3-3 DO YOU CONVERT DECIMAL NUMBERS TO HEXADECIMAL (BASE 16) NUMBERS?	14.3	3.8	.0	50.0	15.4	.0	30.9
K	663	K3-4 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS?	35.7	8.5	36.4	33.3	10.3	.0	41.8
K	664	K3-5 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS?	40.5	8.5	13.6	33.3	10.3	.0	41.8

C TSK	TITLES	706				306				316				362				918			
		(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
K 665	K3-6 DO YOU CONVERT OCTAL NUMBERS TO HEXADECIMAL NUMBERS?	11.0	4.7	.0	33.3	6.4	.0	1.2	30.9	11.0	4.7	.0	33.3	6.4	.0	1.2	30.9	11.0	4.7	.0	33.3
K 666	K3-7 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS?	45.2	17.0	18.2	33.3	11.5	.0	1.2	49.1	45.2	17.0	18.2	33.3	11.5	.0	1.2	49.1	45.2	17.0	18.2	33.3
K 667	K3-8 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS?	38.1	7.5	4.5	33.3	6.4	.0	1.2	38.2	38.1	7.5	4.5	33.3	6.4	.0	1.2	38.2	38.1	7.5	4.5	33.3
K 668	K3-9 DO YOU CONVERT BINARY NUMBERS TO HEXADECIMAL NUMBERS?	11.9	5.7	4.5	33.3	10.3	.0	1.2	30.9	11.9	5.7	4.5	33.3	10.3	.0	1.2	30.9	11.9	5.7	4.5	33.3
K 669	K3-10 DO YOU CONVERT HEXADECIMAL NUMBERS TO DECIMAL NUMBERS?	11.9	5.7	4.5	50.0	11.5	.0	1.2	30.9	11.9	5.7	4.5	50.0	11.5	.0	1.2	30.9	11.9	5.7	4.5	50.0
K 670	K3-11 DO YOU CONVERT HEXADECIMAL NUMBERS TO OCTAL NUMBERS?	11.9	3.8	4.5	33.3	6.4	.0	1.2	30.9	11.9	3.8	4.5	33.3	6.4	.0	1.2	30.9	11.9	3.8	4.5	33.3
K 671	K3-12 DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY NUMBERS?	11.9	5.7	.0	33.3	10.3	.0	1.2	30.9	11.9	5.7	.0	33.3	10.3	.0	1.2	30.9	11.9	5.7	.0	33.3
K 672	K3-13 DO YOU ADD BINARY NUMBERS?	47.6	19.8	9.1	33.3	9.0	.0	5.0	47.3	47.6	19.8	9.1	33.3	9.0	.0	5.0	47.3	47.6	19.8	9.1	33.3
K 673	K3-14 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD?	31.0	9.4	.0	16.7	5.1	.0	1.2	38.2	31.0	9.4	.0	16.7	5.1	.0	1.2	38.2	31.0	9.4	.0	16.7
K 674	K3-15 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD?	35.7	12.3	.0	33.3	7.7	.0	5.0	38.2	35.7	12.3	.0	33.3	7.7	.0	5.0	38.2	35.7	12.3	.0	33.3
K 675	K3-16 DO YOU ADD OCTAL NUMBERS?	28.6	5.7	.0	16.7	5.1	.0	1.2	34.5	28.6	5.7	.0	16.7	5.1	.0	1.2	34.5	28.6	5.7	.0	16.7
K 676	K3-17 DO YOU SUBTRACT OCTAL NUMBERS?	28.6	5.7	4.5	16.7	5.1	.0	1.2	34.5	28.6	5.7	4.5	16.7	5.1	.0	1.2	34.5	28.6	5.7	4.5	16.7
K 677	K3-18 DO YOU ADD HEXADECIMAL NUMBERS?	11.9	4.7	.0	33.3	7.7	.0	1.2	29.1	11.9	4.7	.0	33.3	7.7	.0	1.2	29.1	11.9	4.7	.0	33.3
K 678	K3-19 DO YOU SUBTRACT HEXADECIMAL NUMBERS?	11.9	3.8	.0	33.3	7.7	.0	1.2	29.1	11.9	3.8	.0	33.3	7.7	.0	1.2	29.1	11.9	3.8	.0	33.3
K 679	K3-20 DO YOU DIVIDE BINARY NUMBERS?	31.0	7.5	.0	16.7	2.6	.0	5.0	34.5	31.0	7.5	.0	16.7	2.6	.0	5.0	34.5	31.0	7.5	.0	16.7
K 680	K3-21 DO YOU MULTIPLY BINARY NUMBERS?	31.0	7.5	.0	16.7	2.6	.0	5.0	34.5	31.0	7.5	.0	16.7	2.6	.0	5.0	34.5	31.0	7.5	.0	16.7
K 681	K3-22 DO YOU USE OR REFER TO BINARY CODED DECIMAL (BCD)?	23.8	8.5	9.1	16.7	7.7	.0	1.2	50.9	23.8	8.5	9.1	16.7	7.7	.0	1.2	50.9	23.8	8.5	9.1	16.7
K 682	K3-23 DO YOU USE OR REFER TO GRAY CODE?	11.9	2.8	4.5	.0	3.8	.0	2.5	20.0	11.9	2.8	4.5	.0	3.8	.0	2.5	20.0	11.9	2.8	4.5	.0
K 683	K3-24 DO YOU USE OR REFER TO ICAO CODE?	9.5	.9	.0	.0	2.6	.0	2.5	7.3	9.5	.9	.0	.0	2.6	.0	2.5	7.3	9.5	.9	.0	.0
K 684	K3-25 DO YOU USE OR REFER TO EXCESS-3 CODE?	9.5	1.9	.0	.0	3.8	.0	2.5	14.5	9.5	1.9	.0	.0	3.8	.0	2.5	14.5	9.5	1.9	.0	.0

L LOGIC FUNCTIONS (L1), BOOLEAN EQUATIONS (L2), COUNTERS (L3)

L 685	L1-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS? IF NO, GO TO ITEM L2-1; IF YES, CONTINUE.	71.4	29.2	31.8	50.0	7.7	20.0	.0	76.4
L 686	L1-2 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?	50.0	17.0	9.1	.0	3.8	6.7	.0	56.4
L 687	L1-3 DO YOU CONSTRUCT TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?	50.0	17.0	9.1	.0	3.8	6.7	.0	54.5
L 688	L1-4 DO YOU CONSTRUCT TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?	50.0	16.0	9.1	.0	3.8	.0	.0	54.5
L 689	L1-5 DO YOU CONSTRUCT TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS OR GATES?	52.4	16.0	9.1	.0	2.6	.0	.0	52.7
L 690	L1-6 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' LOGIC SYMBOLS OR GATES?	66.7	28.3	18.2	.0	6.4	.0	.0	74.5
L 691	L1-7 DO YOU USE OR REFER TO TRUTH TABLES FOR 'OR' LOGIC SYMBOLS OR GATES?	66.7	28.3	18.2	.0	6.4	.0	.0	74.5
L 692	L1-8 DO YOU USE OR REFER TO TRUTH TABLES FOR 'AND' OR 'OR' LOGIC SYMBOLS WITH STATE INDICATORS?	66.7	24.5	13.6	.0	5.1	.0	.0	72.7
L 693	L1-9 DO YOU USE OR REFER TO TRUTH TABLES FOR 'EXCLUSIVE OR' LOGIC SYMBOLS?	66.7	25.5	13.6	.0	5.1	.0	.0	70.9
L 694	L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'AND' GATES?	73.8	29.2	27.3	50.0	7.7	13.3	.0	81.8
L 695	L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'OR' GATES?	73.8	30.2	27.3	50.0	7.7	13.3	.0	81.8

EPI INVENTORY DATA FOR 7-SMALL LEVELS

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D TASK TITLES

	706 (M)	306 (M)	316 (M)	316 (M)	362 (M)	362 (M)	362 (M)	71 (M)	73 (M)	74 (M)	919 (M)
L 696 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'NAND' OR 'NOR' GATES?	73.8	29.2	22.7	50.0	6.4	13.3	.0	.0	.0	.0	81.8
L 697 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'EXCLUSIVE OR' GATES?	73.8	27.4	18.2	33.3	5.1	6.7	.0	.0	.0	.0	83.0
L 698 L1-14 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR INHIBITED 'AND' GATES?	66.7	26.4	18.2	50.0	3.8	6.7	.0	.0	.0	.0	81.8
L 699 L1-15 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR '8M' BARS?	47.6	3.8	.0	.0	.0	.0	.0	.0	.0	.0	14.5
L 700 L1-16 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR 'MM' BARS?	47.6	3.8	.0	.0	.0	.0	.0	.0	.0	.0	14.5
L 701 L1-17 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR COMBINERS?	50.0	9.4	4.5	16.7	.0	.0	.0	.0	.0	.0	20.0
L 702 L1-18 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS?	73.8	22.6	.0	33.3	3.8	20.0	.0	.0	.0	.0	67.3
L 703 L1-19 DO YOU USE OR REFER TO ONE-SHOT MULTIVIBRATOR SYMBOLS?	71.4	19.8	.0	33.3	1.3	13.3	.0	.0	.0	.0	63.6
L 704 L1-20 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT OR SCHEMATIC DIAGRAMS?	73.8	24.5	18.2	33.3	5.1	20.0	.0	.0	.0	.0	67.3
L 705 L1-21 DO YOU USE OR REFER TO ONE-SHOT CIRCUIT OR SCHEMATIC DIAGRAMS?	66.7	21.7	18.2	16.7	2.6	6.7	.0	.0	.0	.0	61.8
L 706 L1-22 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES?	50.5	19.8	.0	.0	2.6	.0	.0	.0	.0	.0	54.5
L 707 L1-23 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	40.5	12.3	.0	16.7	3.8	.0	.0	.0	.0	.0	47.3
L 708 L1-24 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS?	40.5	11.3	.0	16.7	3.8	.0	.0	.0	.0	.0	47.3
L 709 L1-25 DO YOU USE OR REFER TO NONCOMPLEMENTED FLIP-FLOP LOGIC SYMBOLS?	40.5	6.6	.0	16.7	2.6	.0	.0	.0	.0	.0	41.8
L 710 L1-26 DO YOU CONSTRUCT TRUTH TABLES FOR '8M' BARS?	26.2	1.9	.0	.0	.0	.0	.0	.0	.0	.0	9.1
L 711 L1-27 DO YOU CONSTRUCT TRUTH TABLES FOR 'MM' BARS?	26.2	1.9	.0	.0	.0	.0	.0	.0	.0	.0	9.1
L 712 L1-28 DO YOU CONSTRUCT TRUTH TABLES FOR COMBINERS?	31.0	2.8	.0	.0	.0	.0	.0	.0	.0	.0	12.7
L 713 L1-29 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS?	61.9	15.1	.0	16.7	1.3	6.7	.0	.0	.0	.0	60.0
L 714 L1-30 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS?	47.6	12.3	4.5	16.7	1.3	6.7	.0	.0	.0	.0	56.4
L 715 L1-31 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	47.6	12.3	.0	16.7	1.3	6.7	.0	.0	.0	.0	54.5
L 716 L1-32 DO YOU TRACE DATA FLOW THROUGH NONCOMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS?	40.5	9.4	4.5	16.7	1.3	6.7	.0	.0	.0	.0	54.5
L 717 L1-33 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS?	45.2	13.2	.0	.0	1.3	.0	.0	.0	.0	.0	45.5
L 718 L2-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS? IF NO, GO TO ITEM L3-1; IF YES, CONTINUE.	52.4	16.0	.0	.0	9.0	.0	1.2	.0	.0	.0	43.6
L 719 L2-2 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS?	23.8	5.7	.0	.0	.0	.0	.0	.0	.0	.0	21.8
L 720 L2-3 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	11.9	4.7	.0	.0	.0	.0	.0	.0	.0	.0	12.7
L 721 L2-4 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS?	19.0	8.5	.0	.0	.0	.0	.0	.0	.0	.0	14.5
L 722 L2-5 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES?	47.6	12.3	.0	.0	1.3	.0	.0	.0	.0	.0	49.1
L 723 L2-6 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS?	23.8	5.7	.0	.0	1.3	.0	.0	.0	.0	.0	18.2

C TSK TITLES

L 724	L2-7 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA?	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
L 725	L2-8 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES?	28.6	8.5	.0	.0	.0	.0	.0	36.4
L 726	L2-9 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS?	5.5	5.7	.0	.0	.0	.0	.0	16.4
L 727	L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE?	47.6	15.1	.0	.0	2.6	.0	.0	45.5
L 728	L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS?	26.2	4.7	.0	.0	.0	.0	.0	16.4
L 729	L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS?	35.7	6.6	.0	.0	.0	.0	.0	20.0
L 730	L3-1 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	61.9	15.1	9.1	50.0	3.8	13.3	.0	50.9
L 731	L3-2 DO YOU USE OR REFER TO UP-COUNTERS?	57.1	15.1	9.1	33.3	1.3	.0	.0	49.1
L 732	L3-3 DO YOU USE OR REFER TO DOWN-COUNTERS?	50.0	15.1	4.5	33.3	1.3	.0	.0	47.3
L 733	L3-4 DO YOU USE OR REFER TO SERIAL COUNTERS?	64.3	15.1	.0	33.3	1.3	.0	.0	41.8
L 734	L3-5 DO YOU USE OR REFER TO PARALLEL COUNTERS?	64.3	14.2	.0	16.7	.0	.0	.0	32.7
L 735	L3-6 DO YOU USE OR REFER TO RING COUNTERS?	35.7	7.5	4.5	16.7	.0	.0	.0	32.7
L 736	L3-7 DO YOU USE OR REFER TO DECADE (MOD 10) COUNTERS?	28.6	8.5	.0	.0	6.7	.0	.0	41.8
L 737	L3-8 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS?	50.0	10.4	4.5	16.7	.0	.0	.0	36.4
L 738	L3-9 DO YOU USE OR REFER TO DOWN CLOCKS?	47.6	12.3	4.5	16.7	1.3	.0	.0	45.5
L 739	L3-10 DO YOU USE OR REFER TO UP CLOCKS?	50.0	13.2	4.5	16.7	1.3	.0	.0	45.5
L 740	L3-11 DO YOU USE OR REFER TO OTHER MODULOUS COUNTERS?	26.2	6.6	4.5	16.7	1.3	6.7	.0	38.2
L 741	L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS?	50.0	15.1	4.5	.0	2.6	.0	.0	41.8
L 742	L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DOWN-COUNTERS?	45.2	15.1	4.5	.0	2.6	.0	.0	41.8
L 743	L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-DOWN COUNTERS?	40.5	13.2	.0	.0	1.3	.0	.0	32.7
L 744	L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS?	40.5	8.5	.0	.0	1.3	.0	.0	32.7
L 745	L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS?	37.3	7.5	.0	.0	1.3	.0	.0	25.5
L 746	L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF COUNTERS FEEDING STORAGE REGISTERS?	59.5	12.3	.0	.0	2.6	.0	.0	36.4
L 747	L3-18 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS?	64.3	15.1	.0	.0	2.6	.0	.0	34.5
L 748	L3-19 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS?	50.0	7.5	.0	.0	2.6	.0	.0	27.3
L 749	L3-20 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS?	23.8	5.7	.0	.0	2.6	.0	.0	20.0
L 750	L3-21 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES?	33.3	8.5	.0	.0	1.3	.0	.0	25.5
L 751	L3-22 DO YOU DETERMINE THE APPROPRIATE 'AND' GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT?	50.0	10.4	.0	16.7	1.3	.0	.0	29.1

EPI INVENTORY DATA FOR 7-SKILL LEVELS

OCCUPATIONAL ANALYSIS PROGRAM
USAFOMC (AIC) RANDOLPH AFB TX

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C	TSK	TITLES	306 (M)	306 (M)	316 7CF (M)	316 (M)	362 71 (M)	362 73 (M)	362 (M)	918 70 (M)
M	752	M1-1 DO YOU WORK WITH SAWTOOTH WAVE GENERATOR TIMING CIRCUITS?	35.7	13.2	.0	33.3	3.8	6.7	1.2	80.0
M	753	M1-2 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATOR TIMING CIRCUITS?	7.1	3.8	.0	.0	.0	.0	.0	60.0
M	754	M1-3 DO YOU WORK WITH PULSED OSCILLATOR TIMING CIRCUITS?	28.6	9.4	.0	33.3	5.1	20.0	.0	63.6
M	755	M1-4 DO YOU WORK WITH BLOCKING OSCILLATOR TIMING CIRCUITS?	14.3	2.8	.0	.0	1.3	.0	.0	54.5
M	756	M1-5 DO YOU WORK WITH MASTER STATION TIMING CIRCUITS?	42.9	4.7	.0	.0	6.4	6.7	2.5	34.5
M	757	M1-6 DO YOU USE OR REFER TO RISE TIME?	45.2	12.3	.0	50.0	2.1	6.7	.0	78.2
M	758	M1-7 DO YOU USE OR REFER TO FALL OR FLYBACK TIME?	42.9	8.5	.0	50.0	2.6	.0	.0	63.6
M	759	M1-8 DO YOU USE OR REFER TO SLEEP TIME?	45.2	12.3	.0	83.3	3.8	13.3	.0	83.6
M	760	M1-9 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS?	21.4	8.5	.0	33.3	2.6	6.7	.0	67.3
M	761	M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS?	21.4	9.4	.0	33.3	2.6	6.7	.0	58.2
M	762	M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS?	19.0	5.7	.0	16.7	2.6	6.7	.0	49.1
M	763	M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS?	21.4	5.7	.0	.0	.0	.0	.0	56.4
M	764	M2-1 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M3-1; IF YES, CONTINUE.	35.7	47.2	13.6	83.3	39.7	80.0	16.2	74.5
M	765	M2-2 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS?	28.6	45.3	9.1	83.3	37.2	73.3	12.5	74.5
M	766	M2-3 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS?	16.7	37.7	4.5	66.7	33.3	33.3	7.5	72.7
M	767	M2-4 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS?	19.0	36.8	9.1	33.3	24.4	33.3	7.5	67.3
M	768	M2-5 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS?	16.7	31.1	.0	.0	11.5	20.0	1.2	61.8
M	769	M2-6 DO YOU USE AUDIO SINE-WAVE GENERATORS?	26.2	11.3	.0	66.7	19.2	73.3	6.3	52.7
M	770	M2-7 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE?	23.8	13.2	.0	66.7	1.3	6.7	2.5	52.7
M	771	M2-8 DO YOU USE RF GENERATORS LESS THAN 1,000 MHZ?	9.5	6.6	.0	16.7	2.6	6.7	1.2	29.1
M	772	M2-9 DO YOU USE RF GENERATORS GREATER THAN 1,000 MHZ?	2.4	2.8	.0	16.7	1.3	.0	1.2	25.5
M	773	M2-10 DO YOU USE WHITE NOISE GENERATORS?	2.4	1.9	.0	.0	1.3	.0	.0	27.3
M	774	M2-11 DO YOU USE PATTERN GENERATORS?	14.3	37.7	4.5	16.7	2.6	.0	.0	40.0
M	775	M2-12 DO YOU USE PSEUDO-RANDOM GENERATORS?	4.8	7.5	.0	.0	1.3	.0	.0	7.3
M	776	M2-13 DO YOU USE TIME MARK GENERATORS?	7.1	17.0	4.5	16.7	.0	.0	.0	50.9
M	777	M2-14 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS?	4.8	17.0	4.5	16.7	10.3	.0	1.2	38.2
M	778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM M1-1; IF YES, CONTINUE.	64.3	59.4	59.1	66.7	24.4	13.3	6.3	83.6
M	779	M3-2 DO YOU INSPECT MOTORS?	58.8	57.5	45.5	66.7	23.1	13.3	5.0	87.3
M	780	M3-3 DO YOU CLEAN OR LUBRICATE MOTORS?	52.4	53.8	9.1	33.3	23.1	13.3	.0	85.5
M	781	M3-4 DO YOU OPERATE MOTORS?	54.8	51.9	50.0	50.0	19.2	13.3	2.5	85.5
M	782	M3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTORS?	54.8	55.7	.0	50.0	20.5	13.3	6.3	85.5

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M 783 M3-6 DO YOU REMOVE OR REPLACE MOTOR PARTS?	306	306	316	316	362	362	362	918
M 784 M3-7 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS?	71	72	70F	72F	71	73	74	70
	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
M 785 M3-8 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS?	42.9	50.9	.0	50.0	9.0	.0	.0	85.5
M 786 M3-9 DO YOU PERFORM TASKS ON MOTOR FIELD COILS?	54.8	50.9	40.9	66.7	23.1	13.3	3.7	87.3
M 787 M3-10 DO YOU PERFORM ANY TASKS ON MOTOR ARMATURES?	31.0	51.9	4.5	33.3	9.0	.0	1.2	83.6
M 788 M3-11 DO YOU PERFORM ANY TASKS ON MOTOR ROTORS?	16.7	40.6	.0	16.7	6.4	.0	.0	58.2
M 789 M3-12 DO YOU PERFORM ANY TASKS ON MOTOR BRUSHES?	28.6	47.2	.0	16.7	9.0	.0	.0	67.3
M 790 M3-13 DO YOU PERFORM ANY TASKS ON MOTOR SLIP RINGS?	21.4	34.9	.0	16.7	9.0	.0	.0	69.1
M 791 M3-14 DO YOU PERFORM ANY TASKS ON MOTOR COMMUTATORS?	26.2	47.2	.0	16.7	12.8	.0	.0	85.5
M 792 M3-15 DO YOU PERFORM ANY TASKS ON MOTOR POLE PIECES?	19.0	43.4	.0	16.7	6.4	.0	.0	61.8
M 793 M3-16 DO YOU DETERMINE OR MEASURE FORCE OR TORQUE CREATED BY A MOTOR?	19.0	43.4	.0	16.7	7.7	.0	.0	61.8
M 794 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OF TORQUE CREATED BY A MOTOR?	14.3	30.2	.0	16.7	5.1	.0	.0	40.0
M 795 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS?	2.4	11.3	.0	16.7	.0	.0	.0	16.4
M 796 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS?	9.5	17.9	4.5	16.7	.0	.0	.0	32.7
M 797 M3-20 DO YOU WORK WITH INDUCTION MOTORS?	2.4	3.8	.0	16.7	.0	.0	.0	21.8
M 798 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS?	28.6	58.7	9.1	50.0	10.3	6.7	.0	78.2
M 799 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS?	23.8	13.2	13.6	50.0	10.3	6.7	.0	80.0
M 800 M3-23 DO YOU WORK WITH SERVOS OR SYNCHROS MOTORS?	9.5	3.8	18.2	16.7	7.7	6.7	.0	50.9
M 801 M3-24 DO YOU WORK WITH SHADED-POLE MOTORS?	19.0	15.1	13.6	.0	10.3	.0	1.2	78.2
M 802 M3-25 DO YOU INSPECT GENERATORS OR ALTERNATORS?	11.9	17.9	9.1	16.7	5.1	13.3	.0	65.5
M 803 M3-26 DO YOU CLEAN OR LUBRICATE GENERATORS OR ALTERNATORS?	4.8	1.9	.0	.0	3.8	.0	1.2	30.9
M 804 M3-27 DO YOU OPERATE GENERATORS OR ALTERNATORS?	47.6	4.7	36.4	16.7	6.4	.0	.0	43.6
M 805 M3-28 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS OR ALTERNATORS?	45.2	3.8	9.1	.0	6.4	.0	.0	41.8
M 806 M3-29 DO YOU REMOVE OR REPLACE GENERATOR, ALTERNATOR, OR PARTS?	47.6	3.8	.0	.0	5.1	.0	.0	32.7
M 807 M3-30 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS OR ALTERNATORS?	40.5	3.8	.0	.0	2.6	.0	.0	32.7
M 808 M3-31 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS OR ALTERNATORS?	45.2	3.8	27.3	16.7	7.7	.0	.0	40.0
	31.0	3.8	13.6	16.7	3.8	.0	.0	32.7

METER MOVEMENTS (N1), SATURABLE REACTORS AND MAGNETIC AMPLIFIERS (N2), WAVESHAPING CIRCUITS (N3)

M 809 M1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM M2-1; IF YES, CONTINUE.	57.1	58.5	63.6	100.0	73.1	73.3	41.2	87.3
M 810 M1-2 DO YOU CONSIDER THE FUNCTIONS OF PERMANENT MAGNET INTERNAL METER PARTS?	16.7	27.4	9.1	16.7	14.1	6.7	5.0	45.5
M 811 M1-3 DO YOU CONSIDER THE FUNCTIONS OF MOVING COIL INTERNAL METER PARTS?	16.7	29.2	9.1	.0	14.1	20.0	6.3	49.1
M 812 M1-4 DO YOU CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS INTERNAL METER PARTS?	11.9	13.2	9.1	.0	14.1	.0	5.0	41.8

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N 813	N1-5 DO YOU READ METER SCALES?	306	306	316	316	362	362	362	362	918
N 814	N1-6 DO YOU EXTEND THE RANGE OF AMMETERS?	71	72	70F	72F	71	71	74	74	70
N 815	N1-7 DO YOU EXTEND THE RANGE OF VOLTMETERS?	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
N 816	N1-8 DO YOU ZERO OHMMETERS?	57.1	59.4	63.6	100.0	70.5	66.7	43.8	43.8	89.1
N 817	N1-9 DO YOU ZERO AMMETERS?	21.4	17.0	31.8	33.3	26.9	6.7	12.5	12.5	61.8
N 818	N1-10 DO YOU USE OR REFER TO VOLTMEETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)?	23.8	22.6	31.8	50.0	35.9	6.7	17.5	17.5	65.5
N 819	N1-11 DO YOU CONSIDER "ALLASTIC RESPONSE OF METER MOVEMENTS?"	50.5	57.5	59.1	100.0	69.2	73.3	43.8	43.8	87.3
N 820	N1-12 DO YOU CONSIDER OTHER METER MOVEMENTS?	23.8	21.7	22.7	50.0	29.5	13.3	10.0	10.0	69.1
N 821	N2-1 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N3-1; IF YES, CONTINUE.	40.5	32.1	18.2	66.7	26.9	40.0	21.2	21.2	65.5
N 822	N2-2 DO YOU INSPECT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	7.1	3.8	.0	16.7	2.6	.0	1.2	1.2	18.2
N 823	N2-3 DO YOU CLEAN SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	14.3	18.9	4.5	33.3	21.8	20.0	11.2	11.2	58.2
N 824	N2-4 DO YOU ADJUST SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	7.1	1.9	4.5	.0	1.3	.0	.0	.0	12.7
N 825	N2-5 DO YOU THROUPELSHOT SATURABLE REACTORS OR MAGNETIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0	7.3
N 826	N2-6 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS?	2.4	.0	.0	.0	.0	.0	.0	.0	9.1
N 827	N2-7 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0	9.1
N 828	N2-8 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS?	.0	.0	.0	.0	.0	.0	.0	.0	7.3
N 829	N2-9 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	4.8	.9	.0	.0	.0	.0	.0	.0	10.9
N 830	N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SATURABLE REACTORS?	2.4	1.9	.0	.0	.0	.0	.0	.0	10.9
N 831	N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS?	.0	.9	.0	.0	.0	.0	.0	.0	7.3
N 832	N2-12 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS?	2.4	.0	.0	.0	.0	.0	.0	.0	12.7
N 833	N3-1 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 01-1; IF YES, CONTINUE.	35.7	17.9	4.5	.0	6.4	13.3	1.2	1.2	67.3
N 834	N3-2 DO YOU USE OR REFER TO TRANSIENT INTERVALS (RISE TIME AND FALL TIME)?	26.2	12.3	.0	.0	1.3	6.7	.0	.0	63.6
N 835	N3-3 DO YOU USE OR REFER TO PULSE WIDTH (PW)?	26.2	11.3	.0	.0	1.3	6.7	.0	.0	67.3
N 836	N3-4 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)?	23.8	8.5	.0	.0	1.3	6.7	.0	.0	58.2
N 837	N3-5 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)?	10.0	6.6	.0	.0	1.3	6.7	.0	.0	60.0
N 838	N3-6 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS?	31.0	6.6	.0	.0	.0	.0	.0	.0	63.6
N 839	N3-7 DO YOU USE OR REFER TO INTEGRATING CIRCUITS?	28.6	12.3	.0	.0	.0	.0	.0	.0	60.0
N 840	N3-8 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT?	23.8	8.5	.0	.0	1.3	.0	.0	.0	35.2

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N 841 N3-9 DO YOU DETERMINE WHETHER AN LP OR HC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION?	306 71 (M)	306 72 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
N 842 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATOR SOLID STATE CIRCUITS?	11.9	7.5	.0	.0	.0	.0	.0	21.8
N 843 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATOR SOLID STATE CIRCUITS?	28.6	13.2	.0	.0	1.3	6.7	.0	69.1
N 844 N3-12 DO YOU WORK WITH TRIANGULAR (SAWTOOTH) WAVE GENERATOR SOLID STATE CIRCUITS?	14.7	8.5	.0	.0	.0	.0	.0	60.0
N 845 N3-13 DO YOU WORK WITH RAMP (TRAPEZOIDAL) GENERATOR SOLID STATE CIRCUITS?	16.7	5.7	.0	.0	1.3	6.7	.0	69.1
N 846 N3-14 DO YOU WORK WITH FUNCTION GENERATOR SOLID STATE CIRCUITS?	9.5	6.6	.0	.0	1.3	.0	.0	63.6
N 847 N3-15 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS?	11.9	5.7	.0	.0	.0	.0	.0	67.3
N 848 N3-16 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS?	21.4	8.5	.0	.0	.0	.0	.0	60.0
N 849 N3-17 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS?	14.3	9.4	.0	.0	1.3	.0	.0	60.0
N 850 N3-18 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS?	14.3	7.5	.0	.0	1.3	.0	.0	60.0
N 851 N3-19 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS?	28.6	10.4	.0	.0	.0	.0	.0	61.8
N 852 N3-20 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS?	26.2	10.4	.0	.0	1.3	.0	.0	60.0
N 853 N3-21 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS?	26.2	8.5	.0	.0	3.8	.0	.0	50.9
	23.8	7.5	.0	.0	1.3	.0	.0	58.2

O SINGLE OR INDEPENDENT SIDEBAND SYSTEMS (01), PULSE
MODULATION SYSTEMS (02), ANTENNAS (03)

0 854 01-1 DO YOU WORK ON SINGLE OR INDEPENDENT SIDEBAND SYSTEMS
IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-1; IF YES,
CONTINUE.

0 855 01-2 DO YOU INSPECT SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?

0 856 01-3 DO YOU CLEAN SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?

0 857 01-4 DO YOU ALIGN SINGLE SIDE BAND (SSB) OR INDEPENDENT
SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?

0 858 01-5 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?

0 859 01-6 DO YOU TROUBLESHOOT TO SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?

0 860 01-7 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE SYSTEMS?

0 861 01-8 DO YOU REMOVE OR REPLACE SINGLE SIDE BAND (SSB) OR
INDEPENDENT SIDEBAND (ISB) TRANSMIT OR RECEIVE COMPONENTS?

.0	1.9	18.2	.0	.0	.0	.0	.0	3.6
.0	1.9	18.2	.0	.0	.0	.0	.0	1.8
.0	.9	.0	.0	1.3	.0	1.2	1.8	
.0	1.9	.0	.0	1.3	.0	1.2	1.8	
.0	1.9	18.2	.0	1.3	.0	1.2	1.8	
.0	1.9	13.6	.0	.0	.0	1.2	1.8	
.0	1.9	4.5	.0	1.3	.0	1.2	1.8	
.0	1.9	4.5	.0	1.3	.0	1.2	1.8	

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	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
0 P62 01-9 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM AUDIO AMPLIFIER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 863 01-10 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM BALANCED MODULATOR STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 864 01-11 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CARRIER OSCILLATOR STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 865 01-12 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM LC FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 866 01-13 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM CRYSTAL FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 867 01-14 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MECHANICAL FILTER STAGE?	.0	.0	.0	.0	1.3	6.7	.0	1.8
0 868 01-15 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM OSCILLATOR STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 869 01-16 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM MIXER STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 870 01-17 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DRIVER STAGE?	.0	.0	.0	.0	1.3	.0	.0	1.8
0 871 01-18 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM POWER AMPLIFIER STAGES?	.0	.9	.0	.0	1.3	.0	.0	1.8
0 872 01-19 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM RF AMPLIFIER STAGE?	.0	.0	4.5	.0	.0	.0	.0	1.8
0 873 01-20 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM FREQUENCY CONVERTER STAGES?	.0	.0	4.5	.0	1.3	.0	.0	1.8
0 874 01-21 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM IF AMPLIFIER STAGE?	.0	.0	.0	.0	.0	.0	.0	1.8
0 875 01-22 DO YOU PERFORM TASKS ON SSB OR ISB TRANSMIT OR RECEIVE SYSTEM DEMODULATOR STAGE?	.0	.0	4.5	.0	.0	.0	.0	1.8
0 876 01-23 DO YOU USE OR REFER TO SELECTIVE FADING WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 877 01-24 DO YOU USE OR REFER TO PEAK POWER WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	6.7	.0	1.8
0 878 01-25 DO YOU USE OR REFER TO FREQUENCY STABILITY WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 879 01-26 DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS WHEN WORKING WITH SSB TRANSMIT OR RECEIVE SYSTEMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 880 01-27 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB OR ISB TRANSMITTERS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 881 01-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB TRANSMITTER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 882 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB OR ISB RECEIVER SCHEMATIC DIAGRAMS?	.0	.0	.0	.0	.0	.0	.0	1.8
0 883 01-30 DO YOU PERFORM AERONAUTIC STATION ASSESSMENT PROGRAMS (ASAP)?	.0	.0	.0	.0	.0	.0	.0	1.8
0 884 02-1 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB? IF NO, GO TO ITEM 02-13; IF YES, CONTINUE.	6.6	4.7	.0	.0	3.8	.0	1.2	17.7
0 885 02-2 DO YOU INSPECT PULSE MODULATION SYSTEMS?	4.8	1.9	.0	.0	2.6	.0	.0	12.7
0 886 02-3 DO YOU CLEAN PULSE MODULATION SYSTEMS?	2.4	.9	.0	.0	2.6	.0	.0	10.9
0 887 02-4 DO YOU ALIGN PULSE MODULATION SYSTEMS?	2.4	.9	.0	.0	1.3	.0	.0	12.7

TITLES

306 (M)	316 72F (M)	316 72F (M)	362 71 (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
0 868 02-5 DO YOU KNOW HOW TO PULSE MODULATION SYSTEMS?	4.8	.9	.0	2.6	.0	.0	12.7
0 869 02-6 DO YOU KNOW HOW TO PULSE MODULATION SYSTEM COMPONENTS?	4.8	.0	.0	.0	.0	.0	12.7
0 890 02-7 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS?	2.4	.9	.0	1.3	.0	.0	12.7
0 891 02-8 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS?	2.4	.0	.0	1.3	.0	.0	12.7
0 892 02-9 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) PULSE MODULATION SYSTEMS?	4.8	.0	.0	1.3	.0	.0	10.9
0 893 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM) PULSE MODULATION SYSTEMS?	4.8	.9	.0	.0	.0	.0	10.9
0 894 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM) PULSE MODULATION SYSTEMS?	4.8	.0	.0	.0	.0	.0	9.1
0 895 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) PULSE MODULATION SYSTEMS?	4.8	.9	.0	1.3	.0	.0	7.3
0 896 02-13 DO YOU WORK ON LINE PULSING MODULATION PULSE MODULATION SYSTEMS?	2.4	.0	.0	.0	.0	.0	10.9
0 897 02-14 DO YOU WORK ON TIME DIVISION MULTIPLEXING (TDM) PULSE MODULATION SYSTEMS?	7.1	.0	.0	2.6	.0	.0	5.5
0 898 02-15 DO YOU WORK ON - DON'T KNOW WHICH TYPE OF MODULATION SYSTEM?	.0	.0	.0	.0	.0	.0	3.6
0 899 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLY STAGE?	4.8	.9	.0	.0	.0	.0	12.7
0 900 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODE STAGE?	.0	.0	.0	1.3	.0	.0	9.1
0 901 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORK STAGE?	7.1	.9	.0	1.3	.0	.0	12.7
0 902 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMER STAGE?	7.1	.0	.0	.0	.0	.0	12.7
0 903 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRON STAGE?	4.8	.0	.0	.0	.0	.0	7.3
0 904 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMER STAGE?	4.8	.0	.0	.0	.0	.0	10.9
0 905 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBE STAGE?	4.8	.0	.0	.0	.0	.0	5.5
0 906 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIER STAGE?	7.1	.0	.0	.0	.0	.0	7.3
0 907 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTER STAGE?	7.1	.0	.0	.0	.0	.0	10.9
0 908 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	10.9
0 909 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTOR STAGE?	7.1	.0	.0	.0	.0	.0	10.9
0 910 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	9.1
0 911 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIER STAGE?	4.8	.0	.0	.0	.0	.0	9.1
0 912 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) WHEN WORKING WITH PULSE MODULATION SYSTEMS?	4.8	.0	.0	1.3	.0	.0	10.9

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Q	TSK	TITLE	306 (M)	306 72 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
0	941	03-18 DO YOU WORK WITH RHOMBIC BASIC ANTENNAS?	2.4	.9	.0	.0	.0	.0	.0	.0
0	942	03-19 DO YOU WORK WITH CIPOL BASIC ANTENNAS?	2.4	.9	18.2	.0	.0	.0	1.2	.0
0	943	03-20 DO YOU WORK WITH SCIMITAR BASIC ANTENNAS?	.0	.0	.0	.0	.0	.0	.0	.0
0	944	03-21 DO YOU WORK WITH PARABOLIC BASIC ANTENNAS?	2.4	.9	4.5	.0	.0	.0	.0	.0
0	945	03-22 DO YOU WORK WITH GROUND PLANE BASIC ANTENNAS?	4.8	.9	9.1	.0	.0	.0	1.2	.0
0	946	03-23 DO YOU WORK WITH FOLDED DIPOLE BASIC ANTENNAS?	2.4	.9	9.1	.0	.0	.0	.0	.0
0	947	03-24 DO YOU WORK WITH CROSSLINK ARRAYS?	.0	.0	.0	.0	.0	.0	.0	.0
0	948	03-25 DO YOU WORK WITH END-FIRE ARRAYS?	.0	.0	.0	.0	.0	.0	.0	.0
0	949	03-26 DO YOU WORK WITH CARDIAC ARRAYS?	.0	.0	4.5	.0	.0	.0	.0	.0
0	950	03-27 DO YOU WORK WITH COLLINER ARRAYS?	.0	.0	4.5	.0	.0	.0	.0	.0
0	951	03-28 DO YOU WORK WITH PHASE ARRAYS?	2.4	.0	.0	.0	.0	.0	.0	.0
0	952	03-29 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS?	2.4	.0	.0	16.7	.0	.0	.0	.0
0	953	03-30 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS?	2.4	.0	.0	.0	.0	.0	.0	.0
0	954	03-31 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS?	2.4	.0	.0	16.7	.0	.0	.0	.0
0	955	03-32 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS?	2.4	.0	.0	.0	.0	.0	.0	.0
0	956	03-33 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION?	2.4	.0	.0	.0	.0	.0	.0	.0
0	957	03-34 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD?	2.4	.0	.0	.0	.0	.0	.0	.0
0	958	03-35 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED?	2.4	.0	4.5	16.7	.0	.0	.0	.0
0	959	03-36 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED?	2.4	.0	9.1	.0	.0	.0	.0	.0
0	960	03-37 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON?	2.4	.0	.0	.0	.0	.0	.0	.0
0	961	03-38 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS?	.0	.9	4.5	.0	.0	.0	.0	.0
0	962	03-39 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS?	.0	.0	4.5	.0	.0	.0	.0	.0
0	963	03-40 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS?	2.4	.0	4.5	.0	1.3	.0	.0	.0
0	964	03-41 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN - DON'T KNOW WHAT KIND OF ELEMENT?	7.1	.9	9.1	16.7	1.3	.0	.0	.0
0	965	03-42 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS?	2.4	.9	4.5	16.7	.0	.0	.0	.0
0	966	03-43 DO YOU WORK ON BIDIRECTIONAL ANTENNAS?	.0	.9	9.1	.0	.0	.0	.0	.0
0	967	03-44 DO YOU WORK ON OMNIDIRECTIONAL ANTENNAS?	4.8	.9	18.2	16.7	.0	.0	1.2	.0
0	968	03-45 DO YOU WORK WITH ROTARY ANTENNA ARRAYS?	2.4	.0	.0	.0	.0	.0	1.2	.0

P TRANSMISSION LINES (P1), WAVEGUIDES AND CAVITY RESONATORS (P2), MICROWAVE AMPLIFIERS AND OSCILLATORS (P3)

D TSK	TITLES	306 (M)	306 72 (M)	310 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P 992	P1-24 DO YOU USE OR REFER TO THE TERM CUT OFF FREQUENCY OF TRANSMISSION LINES?	2.4	1.9	.0	.0	6.4	.0	1.2	.0
P 993	P2-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES?	2.4	.0	.0	.0	.0	.0	1.2	.0
P 994	P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES?	2.4	.9	.0	.0	2.6	.0	.0	.0
P 995	P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTHS FOR GIVEN FREQUENCIES?	2.4	.0	.0	.0	1.3	.0	2.5	.0
P 996	P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES?	4.8	.0	.0	.0	7.7	6.7	2.5	.0
P 997	P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES?	4.8	1.9	.0	.0	16.7	6.7	5.0	.0
P 998	P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES?	4.8	2.8	.0	.0	12.8	6.7	2.5	.0
P 999	P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING?	2.4	1.9	.0	.0	7.7	6.7	6.3	.0
P1000	P2-1 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB? IF NO, GO TO ITEM P3-1; IF YES, CONTINUE.	2.4	.0	.0	.0	1.3	.0	2.5	1.8
P1001	P2-2 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	1.2	1.8
P1002	P2-3 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1003	P2-4 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1004	P2-5 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1005	P2-6 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1006	P2-7 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	1.8
P1007	P2-8 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS?	.0	.0	.0	.0	.0	.0	.0	1.8
P1008	P2-9 DO YOU REMOVE OR INSTALL DUMMY LOADS?	.0	.0	.0	.0	.0	.0	.0	1.8
P1009	P2-10 DO YOU REMOVE OR INSTALL E BENDS?	.0	.9	.0	.0	.0	.0	.0	.0
P1010	P2-11 DO YOU REMOVE OR INSTALL H BENDS?	.0	.0	.0	.0	.0	.0	.0	.0
P1011	P2-12 DO YOU REMOVE OR INSTALL OTHER BENDS?	.0	.0	.0	.0	.0	.0	.0	.0
P1012	P2-13 DO YOU REMOVE OR INSTALL CHOKES JOINTS?	.0	.9	.0	.0	.0	.0	.0	1.8
P1013	P2-14 DO YOU REMOVE OR INSTALL ROTATING JOINTS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1014	P2-15 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1015	P2-16 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS?	.0	.0	.0	.0	.0	.0	1.2	1.8
P1016	P2-17 DO YOU REMOVE OR INSTALL DUPLEXERS OR MIXERS?	.0	.0	.0	.0	1.3	.0	1.2	1.8
P1017	P2-18 DO YOU REMOVE OR INSTALL WAVEGUIDE SHUTTERS?	.0	.9	.0	.0	1.3	.0	.0	1.8
P1018	P2-19 DO YOU REMOVE OR INSTALL TRANSMIT (TR) OR ANTI-TRANSMIT (ATR) TUBES?	.0	.0	.0	.0	1.3	.0	.0	.0
P1019	P2-20 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES?	2.4	.0	.0	.0	1.3	6.7	.0	.0
P1020	P2-21 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES?	2.4	.0	.0	.0	1.3	6.7	1.2	.0
P1021	P2-22 DO YOU USE OR REFER TO CUT OFF FREQUENCY OF WAVEGUIDES?	4.8	.0	.0	.0	.0	6.7	1.2	1.8
P1022	P2-23 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	1.8
P1023	P2-24 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES?	.0	.0	.0	.0	.0	.0	.0	.0
P1024	P2-25 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS?	2.4	.0	.0	.0	.0	.0	.0	.0

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326	306	316	362	362	918
71	72	70F	71	73	77
(M)	(M)	(M)	(M)	(M)	(M)

MSL 0
TTS

P1025 P2-26 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS?

P1026 P2-27 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS?

P1027 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "H" WALL SIZE OR .7 WAVELENGTHS OF THE OPERATING FREQUENCY?

P1028 P2-29 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 AS AN AVERAGE?

P1029 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION?

P1030 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES?

P1031 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES?

P1032 P2-33 DO YOU MEASURE THE TIME PHASE OF "F" OR "H" LINES IN WAVEGUIDES?

P1033 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES?

P1034 P2-35 DO YOU WORK WITH HIGH POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?

P1035 P2-36 DO YOU WORK WITH LOW POWER PROBE ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?

P1036 P2-37 DO YOU WORK WITH LOOP ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?

P1037 P2-38 DO YOU WORK WITH APERTURES (WINDOWS OR IRISES) ENERGY COUPLING DEVICES ON WAVEGUIDES OR CAVITY RESONATORS?

P1038 P2-39 DO YOU WORK WITH CHUCK JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?

P1039 P2-40 DO YOU WORK WITH ROTATING JOINTS IN WAVEGUIDES OR CAVITY RESONATORS?

P1040 P2-41 DO YOU WORK WITH JOINTS IN WAVEGUIDES OR CAVITY RESONATORS BUT DON'T KNOW WHICH KIND?

P1041 P2-42 DO YOU TUNE CAVITY RESONATORS USING ELECTRICAL METHODS?

P1042 P2-43 DO YOU TUNE CAVITY RESONATORS USING MECHANICAL METHODS?

P1043 P2-44 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS?

P1044 P2-45 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRON? IF YES, GO TO ITEM Q1-17; IF YES, CONTINUE.

P1045 P2-46 DO YOU USE OR REFER TO INTERLECT-ODE CAPACITANCE FACTORS THAT CAUSE OVER GENERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?

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P1046	P3-3 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	306 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
P1047	P3-4 DO YOU USE OR REFER TO LEAD INDUCTANCE FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	2.4	.9	.0	.0	.0	6.7	.0	1.8
P1048	P3-5 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY FACTORS THAT CAUSE POOR OPERATION OF CONVENTIONAL ELECTRON TUBES AT HIGH FREQUENCIES?	2.4	.9	.0	.0	.0	6.7	1.2	1.8
P1049	P3-6 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION?	2.4	1.9	.0	.0	1.3	.0	.0	1.8
P1050	P3-7 DO YOU USE OR REFER TO ELECTRON BUNCHING?	7.1	1.9	.0	.0	1.3	.0	1.2	.0
P1051	P3-8 DO YOU WORK WITH TWO-CAVITY KLYSTRONS?	.0	.0	.0	.0	.0	6.7	.0	.0
P1052	P3-9 DO YOU WORK WITH THREE-CAVITY KLYSTRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1053	P3-10 DO YOU WORK WITH REFLEX KLYSTRONS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1054	P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1055	P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	.0	.0	.0	.0
P1056	P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	.0	.0	.0	.0
P1057	P3-14 DO YOU WORK WITH MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	1.8
P1058	P3-15 DO YOU WORK WITH BACKWARD WAVE OSCILLATORS (BWO)?	.0	.0	.0	.0	.0	.0	.0	.0
P1059	P3-16 DO YOU INSPECT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1060	P3-17 DO YOU CLEAN KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	.0	.0	.0	.0	.0	.0	.0	.0
P1061	P3-18 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY?	.0	.0	.0	.0	.0	.0	.0	.0
P1062	P3-19 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY?	.0	.0	.0	.0	.0	.0	.0	.0
P1063	P3-20 DO YOU PERFORM OPERATIONAL CHECKS ON KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	2.4	.0	.0	.0	.0	.0	.0	.0
P1064	P3-21 DO YOU TROUBLESHOOT KLYSTRONS OR TRAVELING WAVE TUBES (TWT)?	4.8	.0	.0	.0	.0	.0	.0	.0
P1065	P3-22 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRONS OR TWT'S?	.0	.0	.0	.0	.0	.0	.0	.0
P1066	P3-23 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS?	.0	.0	.0	.0	.0	.0	.0	.0
P1067	P3-24 DO YOU INSPECT PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	.0	.0	.0	.0
P1068	P3-25 DO YOU CLEAN PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1069	P3-26 DO YOU ADJUST PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1070	P3-27 DO YOU TUNE PARAMETRIC AMPLIFIERS?	7.1	.9	.0	.0	1.3	.0	2.5	.0
P1071	P3-28 DO YOU PERFORM OPERATIONAL CHECKS ON PARAMETRIC AMPLIFIERS?	2.4	.9	.0	.0	2.6	.0	1.2	.0
P1072	P3-29 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS?	2.4	.0	.0	.0	1.3	.0	2.5	.0
P1073	P3-30 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIERS?	.0	.0	.0	.0	2.6	.0	1.2	.0
P1074	P3-31 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS?	.0	.0	.0	.0	2.6	.0	1.2	.0
P1075	P3-32 DO YOU INSPECT MAGNETRONS?	2.4	.9	.0	.0	.0	.0	.0	1.8
P1076	P3-33 DO YOU CLEAN MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	.0	.0
P1077	P3-34 DO YOU ADJUST MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	1.2	.0
P1078	P3-35 DO YOU TUNE MAGNETRONS?	2.4	1.9	.0	.0	.0	.0	.0	.0
P1079	P3-36 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS?	4.8	1.9	.0	.0	.0	.0	.0	1.8
P1080	P3-37 DO YOU TROUBLESHOOT MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0	1.8

	TITLES	306 71 (M)	316 72 (H)	326 73F (M)	362 71 (P)	362 73 (M)	368 74 (P)	918 70 (M)
P1106	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF MAGNET COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.C	.0
P1107	P3-64 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF ATTENUATOR COMPONENTS OF TRAVELING-WAVE TUBES?	2.4	.0	.0	.0	.0	.0	.0
P1108	P3-65 DO YOU PERFORM TASKS ON FERRITE CIRCULATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	1.3	.0	.C	.0
P1109	P3-66 DO YOU PERFORM TASKS ON SIGNAL CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	1.3	.0	.0	.0
P1110	P3-67 DO YOU PERFORM TASKS ON ISOLER CAVITY COMPONENTS OF PARAMETRIC AMPLIFIERS?	7.1	.0	.0	1.3	.0	.0	.0
P1111	P3-68 DO YOU PERFORM TASKS ON VAPACITOR DIODE COMPONENTS OF PARAMETRIC AMPLIFIERS?	4.8	.0	.0	1.3	.0	.0	.0
P1112	P3-69 DO YOU PERFORM TASKS ON FERRITE ISOLATOR COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	1.3	.0	.0	.0
P1113	P3-70 DO YOU PERFORM TASKS ON REVERSE-BIAS BATTERY COMPONENTS OF PARAMETRIC AMPLIFIERS?	2.4	.0	.0	1.3	.0	1.2	.0
P1114	P3-71 DO YOU PERFORM TASKS ON ANODE COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1115	P3-72 DO YOU PERFORM TASKS ON ANODE COOLING PIN COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1116	P3-73 DO YOU PERFORM TASKS ON COUPLING LOOP COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1117	P3-74 DO YOU PERFORM TASKS ON HEATER LEAD COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1118	P3-75 DO YOU PERFORM TASKS ON RESONANT CAVITY COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1119	P3-76 DO YOU PERFORM TASKS ON CATHODE COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0
P1120	P3-77 DO YOU PERFORM TASKS ON MAGNET COMPONENTS OF MAGNETRONS?	2.4	.0	.0	.0	.0	.0	.0

REGISTERS (Q1), STORAGE DEVICES (Q2), DIGITAL-TO-ANALOG AND DIGITAL-TO-DIGITAL CONVERTERS (Q3)

Q1121	Q1-1 DO YOU USE OR REFER TO STORAGE REGISTERS?	60.0	32.1	9.1	33.3	9.0	.0	1.2	50.9
Q1122	Q1-2 DO YOU USE OR REFER TO SHIFT REGISTERS?	60.0	34.9	.0	33.3	3.8	.0	.0	52.7
Q1123	Q1-3 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS?	66.7	34.0	.0	33.3	3.8	.0	.0	58.2
Q1124	Q1-4 DO YOU USE OR REFER TO LOGIC SYMBOLS OR STORAGE REGISTERS?	66.7	31.1	.0	33.3	3.8	.0	.0	58.2
Q1125	Q1-5 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTER CIRCUITS?	66.7	29.2	.0	33.3	2.6	.0	1.2	52.7
Q1126	Q1-6 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPES OF REGISTER CIRCUITS?	61.0	25.5	.0	33.3	2.6	6.7	1.2	50.9
Q1127	Q1-7 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED?	59.5	28.3	.0	33.3	2.6	6.7	1.2	49.1

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D TSM TITLES

	704 (M)	306 (M)	316 70F (M)	316 72F (M)	362 71 (M)	362 73 (M)	362 74 (M)	918 70 (M)
Q1160 Q3-6 DO YOU PERFORM TASKS ON HOLD FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	7.1	.9	.0	.0	2.6	.0	.0	25.5
Q1161 Q3-7 DO YOU PERFORM TASKS ON COMPARE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	11.0	.9	.0	.0	3.8	.0	.0	23.6
Q1162 Q3-8 DO YOU PERFORM TASKS ON DIGITIZE FUNCTION PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS?	14.7	.9	.0	.0	3.8	.0	.0	21.8
Q1163 Q3-9 DO YOU PERFORM TASKS ON PORTIONS OF ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS BUT DON'T KNOW WHICH FUNCTION?	2.4	.0	.0	.0	5.1	.0	1.2	10.9
Q1164 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS?	7.1	1.9	.0	.0	1.3	.0	.0	27.3
Q1165 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS?	9.5	.9	.0	.0	1.3	.0	.0	27.3
Q1166 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS?	14.3	.9	.0	.0	1.3	.0	.0	25.5
Q1167 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS?	16.7	1.9	.0	.0	2.6	.0	.0	29.1
Q1168 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS?	.0	.9	.0	.0	.0	.0	.0	21.8
Q1169 Q3-15 DO YOU PERFORM ANY TASKS ON ELECTRONIC A/D CONVERTERS?	10.0	2.8	.0	.0	5.1	.0	1.2	30.9
Q1170 Q3-16 DO YOU PERFORM ANY TASKS ON DIGITAL-TO-ANALOG (D/A) CONVERTERS?	10.0	3.8	.0	.0	6.4	.0	1.2	29.1
Q1171 Q3-17 DO YOU OPERATE COMPUTER KEYBOARDS?	11.9	1.9	.0	.0	12.8	.0	.0	21.8
Q1172 Q3-18 DO YOU WORK AT OR WITH COMPUTER TERMINALS?	14.3	1.9	.0	.0	11.5	.0	1.2	14.5
Q1173 Q3-19 HAVE YOU BEEN SENT TO FACTORY TRAINING OR TO ANY OTHER SCHOOL FOR THE SPECIFIC PURPOSE OF RECEIVING COMPUTER OR LOGIC CIRCUIT RELATED TRAINING?	11.0	3.8	.0	.0	10.3	.0	1.2	20.0
Q1174 Q3-20 DO YOU HAVE MICROPROCESSORS OR COMPUTER EQUIPMENT LOCATED AT YOUR WORK STATION WHICH IS OPERATED OR MAINTAINED BY CONTRACTOR PERSONNEL?	16.7	4.7	.0	.0	7.7	6.7	2.5	27.3
Q1175 Q3-21 WAS THE COMPUTER OR LOGIC CIRCUIT TRAINING YOU RECEIVED IN YOUR 3-LEVEL AWARDING COURSE ADEQUATE IN TERMS OF YOUR PRESENT DUTIES?	11.9	.9	.0	.0	1.3	.0	1.2	7.3
Q1176 Q3-22 ARE YOU ASSIGNED AGAINST A POSITION WHICH REQUIRES A "D" PREFIX?	.0	.0	.0	.0	.0	.0	.0	1.8

P PHANTASTRONS (R1), SCHMITT TRIGGERS (R2), CABLE FABRICATION (R3)	-----							
Q1177 P1-1 DO YOU WORK WITH PHANTASTRON CIRCUITRY? IF NO, GO TO ITEM P2-1. IF YES, CONTINUE.	2.4	.0	.0	.0	.0	6.7	.0	9.1
Q1178 P1-2 PHANTASTRON CIRCUITRY HAS VARIABLE-DELAY APPLICATIONS IN MY JOB.	2.4	.0	.0	.0	.0	6.7	.0	5.5
Q1179 P1-3 PHANTASTRON CIRCUITRY HAS SEARCH-LOCK AUTOMATIC FREQUENCY CONTROLS (AFC) APPLICATIONS IN MY JOB.	.0	.0	.0	.0	.0	.0	.0	5.5
Q1180 P1-4 PHANTASTRON CIRCUITRY HAS MONOSTABLE MULTIVIBRATORS APPLICATIONS IN MY JOB.	2.4	.0	.0	.0	.0	6.7	.0	7.3

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[illegible]

COMPUTERS, MICROPROCESSORS, AND PROGRAMMING (U1), DB AND POWER RATIOS (U2)

SEE INSTRUCTIONS PAGE FOR 7-SKILL LEVELS

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U1349 U1-45 DO YOU USE FORTRAN PROGRAMMING LANGUAGE?
U1349 U1-46 DO YOU USE COBOL PROGRAMMING LANGUAGE?
U1350 U1-47 DO YOU USE RPG PROGRAMMING LANGUAGE?
U1351 U1-48 DO YOU USE OR PERFORM TASKS ON MICROPROCESSOR BASED EQUIPMENT?
U1352 U1-49 DO YOU USE INPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1353 U1-50 DO YOU USE OUTPUT PORT LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1354 U1-51 DO YOU USE RAM MEMORY CIRCUITS (STATIC OR DYNAMIC) IN CONJUNCTION WITH THE MICROPROCESSOR?
U1355 U1-52 DO YOU USE ROM MEMORY CIRCUITS (INCLUDES PROM, EPROM, ETC.) IN CONJUNCTION WITH THE MICROPROCESSOR?
U1356 U1-53 DO YOU USE TRI-STATE CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1357 U1-54 DO YOU USE CLOCK GENERATOR CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1358 U1-55 DO YOU USE STATUS LATCH CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1359 U1-56 DO YOU USE BIDIRECTIONAL BUFFER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1360 U1-57 DO YOU USE ENCODER/DECODER CIRCUITS IN CONJUNCTION WITH THE MICROPROCESSOR?
U1361 J2-1 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION?
U1362 U2-2 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS?
U1363 U2-3 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS?
U1364 U2-4 DO YOU USE VTVM (5 METERS) TO CHECK FOR NOISE OR SIGNAL LEVEL?
U1365 U2-5 DO YOU USE VTVM (25 METERS) TO CHECK OR ADJUST AUDIO AMPLIFIERS?
U1366 U2-6 DO YOU USE A HP3550 OR 344A TEST SET TO ALIGN AUDIO EQUIPMENT?

706	306	316	316	362	362	362	918
71	72	70F	72F	71	73	74	70
(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
4.8	.0	.0	.0	.0	.0	.0	1.8
4.8	1.9	.0	.0	.0	6.7	.0	1.8
4.8	1.9	.0	.0	.0	.0	.0	1.3
16.7	6.6	.0	.0	5.1	.0	.0	7.3
7.1	1.9	.0	.0	3.8	.0	.0	9.1
7.1	1.9	.0	.0	3.8	.0	.0	9.1
11.0	4.7	.0	.0	6.4	.0	.0	14.5
14.3	5.7	.0	.0	6.4	.0	.0	14.5
2.4	.0	.0	.0	1.3	.0	.0	10.9
11.9	3.8	4.5	.0	3.8	.0	.0	12.7
7.1	1.9	.0	.0	2.6	.0	.0	7.3
11.0	2.8	.0	.0	3.8	.0	.0	9.1
14.3	4.7	.0	.0	3.8	.0	.0	12.7
40.5	14.2	9.1	.0	57.7	73.3	18.8	38.2
7.1	1.9	.0	.0	1.3	6.7	.0	9.1
4.8	1.9	.0	.0	2.6	6.7	.0	7.3
47.6	10.4	.0	16.7	57.7	66.7	22.5	38.2
33.3	6.6	.0	.0	50.0	73.3	16.2	30.9
26.2	4.7	.0	.0	53.8	26.7	10.0	3.6

END

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